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THE

AMERICAN FARMER:

A

MONTHLY MAGAZINE

OF

AGRICULTURE AND HORTICULTURE.

N. B. WORTHINGTON, EDITOR.

THE OLDEST AGRICULTURAL PUBLICATION IN THE UNITED STATES.

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GROVER & BAKER'S SEWING MACHINES,

For Family and Plantation Use.

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ITS FIELD IS THE WORLD—ITS REIGN HAS COMMENCED.

THE ONLY MACHINE FIT FOR SOUTHERN USE.

Report of Committee upon Family Sewing Machines,

APPOINTED BY THE TENNESSEE STATE FAIR, 1860.

NASHVILLE, Tennessee, 15th September, 1860.

The Committee appointed by the State Bureau of the Seventh Annual State Fair of Tennessee, to examine and mark award for the best Family Sewing Machine, find on exhibition the following named machines in competition: the I. M. Singer, Wheeler & Wilson, A. B. Howe, and the Grover & Baker.

The first three named, although differing in construction and capacity, still, so far as the stitch is concerned, all arrive at the same point, making what is called and known as the *Shuttle Stitch*, each using a shuttle or shuttle and bobbin, on to which all the lower thread, or thread used underneath, is required to be re-spooled. The Shuttle Machine may be used upon some classes of family sewing with a degree of satisfaction: but we conceive from their construction, operation, and stitch, their principal adaptation is to the purposes of manufacturers.

The points we conceive most necessary and important to meet the wide range of requirements in a machine for family sewing, we find more fully combined in the GROVER & BAKER, VIZ: EXTENT OF CAPACITY, SIMPLICITY OF CONSTRUCTION, EASE OF MANAGEMENT, ADVANTAGE OF USING THREAD FROM TWO SPOOLS WITHOUT RE-WINDING, STRENGTH OF WORK, ELASTICITY, DURABILITY AND REGULARITY OF STITCH, AND QUIETNESS OF MOVEMENT.

We therefore mark award to the Grover & Baker.

JOHN HERIGES, *Chairman*,
J. W HORTON,
J. W. WILSON,
C. H. WHITE,
JAMES A. WOODS,
} COMMITTEE.

I HEREBY CERTIFY, that the above is a true copy of the original decision and award of the Committee upon Family Sewing Machines, appointed by the Tennessee State Fair for 1860.

L. P. WILLIAMS, *Secretary Tennessee State Agricultural Bureau.*

☞SEND FOR A CIRCULAR.

GROVER & BAKER Sewing Machine Co.,

nov-1y **181 BALTIMORE STREET, Baltimore.**

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THE

AMERICAN FARMER:

DEVOTED TO

Agriculture, Horticulture and Rural Economy.

[ESTABLISHED 1819.]

"O FORTUNATOS NIMIUM SUA SI BONA NORINT
"AGRICOLAS." . . . . . *Virg.*

Fifth Series. BALTIMORE, AUGUST, 1861. Vol. III.—No. 2.

AUGUST.

Amidst thy fields, whence simplest pleasures flow,
Search not the laboured pomp of empty show;
Else wilt thou find, a prey to useless pride,
Thy mind depressed, thy heart dissatisfied.
Too oft does man, with nature still at war,
In proud conceit, her fairest prospects mar:
With pitying eye I mark the wealthy clown,
That to the country brings the city down,
With splendid pomp adorns his house and board,
And at the village acts the sumptuous lord.

WORK FOR THE MONTH.

The grain and hay being all secured, the corn working finished, and buckwheat, cabbages, Ruta Bagas, &c., committed to the ground, the heavy labours of the season will now abate, and a respite during the heats of August may be allowed, in which we may moderate our toils and take matters some what more leisurely. Tobacco, late potatoes, turnips, &c., must still receive due attention, and grain threshing, the preparation of fallows, &c., will be the chief labours of the grain farm.

WHEAT THRESHING.

It is well to thresh wheat as soon as may be after harvest. It is impossible in the present state of affairs to anticipate the market price in the future, but we should at least be in position to avail ourselves of the best that may offer, or of such as may be satisfactory. Give especial care to avoid accidents with the threshing machine which are so often fatal. The driver should have a platform through which he can by no possibility thrust his legs through the cog-wheels, and the feeder should find it a most difficult matter to get his hand among the teeth of the machine when in motion. He should be provided with a mask made of sponge through which he may breathe without inhaling his "peck of dirt" in too great a hurry. Give the work your own careful supervision.

TOBACCO.

The cultivation of this crop should be carried on to the full extent of its demands. Keep the ground thoroughly stirred, until the leaves reach from row to row. Give it a second hoeing, and leave it entirely clean of grass. Topping should be done when the blossom buds appear, and the worms should be subdued entirely whenever they appear; make the necessary preparations for housing—providing sticks, scaffolding, &c.

POTATOES.

Keep this crop well cultivated until the blossoms appear.

RUTA BAGA AND WHITE TURNIP.

Ruta Bagas should be sown without delay on well manured grounds. The white turnip should be sown by the 10th if a full crop is desired. The purple top is the best white turnip for stock, but not at all equal to the Ruta Baga.

RYE.

Preparations should be made during the month to sow rye by the first of September. Light land, not so suitable for wheat, makes excellent rye. We would not sow it on poor land, however, without guano to the amount of one hundred weight, or its equivalent in other manure. While early sowing is especially to be recommended, it may be sown after potatoes or other late crops, until the middle of November. The early sown will yield much winter and spring

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Md. Dept.

pasturage for calves and sheep, or afford the earliest green food for cutting. A bushel to the acre is a good seeding.

TIMOTHY.

The best method of growing timothy, on a large scale, is in a rotation with grain. Then the seed should be sown on the surface immediately after completing the wheat seeding. When a lot is especially devoted to this crop, however, and the hay is wanted the first season after seeding, the lot should be well prepared by ploughing, harrowing, manuring, &c., and may be sown thinly with the purple top turnip about the twentieth of the month. When the turnips are well up, sow the timothy seed, a peck to the acre, and run over with a light harrow and with the hoes to thin them well. This working will set the timothy well and give a good crop the following season, while the turnips will pay the expense of the cultivation.

CATTLE PENS.

Cattle should be penned regularly at night, either in the yard with abundant litter, or in the field for next year's crop, in pens to be frequently removed. Do not, however, make the mistake of ploughing up after removing the pens, but let them stand till you plough the field in course.

BUSHES AND BRIARS.

Run over your fields and destroy all bushes and briars, and especially such weeds as are going to seed. Take notice that these seeds will be sufficiently matured for germination before you would suppose it from their appearance, and unless you are well assured to the contrary, you had better burn, than leave them on the ground, or throw them on the manure heap.

MANURES.

This is the season which many grain growers take to haul the bulk of their farm-yard manure to the fields. Whether designed for the wheat crop or next year's cultivation, we hope the practice of ploughing them under will be abandoned, or at least, that those who are wedded to that practice will give both methods a fair trial. If oat stubble is to be manured for wheat, let the ploughing be done first, and the manure taken and spread immediately from the cart or wagon, to lie until wheat seeding. This is a proper time to gather up all the available manure from every source, and if not wanted on the wheat field, to spread upon the corn or tobacco cultivation of next year.

FALLOWING.

The earlier the fallow is prepared for wheat the better. We need not urge the importance of having this work done in the most thorough manner. If there be much clover on the ground, turn down to such depth as to leave a good bed of free earth above, which is to be put in condition for the seed bed, by harrowing and rolling. After such a ploughing the ground cannot be made too solid for the wheat to flourish in.

THE VEGETABLE GARDEN.

ASPARAGUS.

Keep asparagus beds, especially those of young plants, entirely clean of weeds.

BEANS.

Kidney beans, of early sorts, may be sown for fall use.

CELERY.

Plant out at once, if not already done, your winter supply of celery, and earth up that now growing, every ten days, or so, when the ground is quite dry. Be careful to avoid smothering the bud.

COLEWORTS, BORECOLE, SAVOYS.

Plant Savoys two feet each. Early Yorks may be planted for use in fall as Coleworts. Plant Borecole.

RADISHES.

Sow seeds now and occasionally for fall use.

SPINAGE.

Sow now a small bed for fall use, and be prepared to sow crop to stand over winter, about first of September.

SMALL SALADING.

Lettuce, Radish, Cresses, Mustard, &c., may be sown occasionally for small salading.

TURNIPS.

Sow white turnips immediately for early use, and two weeks later for main crop.

LETTUCE.

Sow Brown Dutch and Selesian lettuce seed for fall use. About the last of the month sow seeds of the hardy sorts, to plant in cold frames or warm borders for winter and spring.

GREEN PEAS.

These may be sown for use in October.

GROWING CROPS.

Keep all growing crops clean.

HERBS.

Cut such Herbs as are in flower and put in a dry shady place to dry.

COMPOST.

Gather materials for an abundant supply of compost.

THE ORCHARD.

In the orchard, trees which are cankered or show much gum, should have the decayed part cut out clean to the sound wood, and covered with some preparation to exclude the air and allow it to heal.

Trees in danger of breaking down with fruit, should be properly supported with stakes. Guard against chafing by using bands of hay. All fallen fruit should be picked up frequently and destroyed.

THE NURSERY.

Peaches, Nectarines, Almonds, Apricots and other stone fruits may be budded this month.

Save stones of all stone fruit, and put them in the ground at once. They should never be allowed to dry, if you would have them come up promptly.

Give proper attention to seedlings, keeping them free of grass and weeds, and the soil loose.

Whenever convenient, prepare your ground by ploughing and manuring for autumn planting.

Flower Garden and Green House.

At this season of the year, it is of the highest importance to those having a mixed collection of soft-wooded plants, that the whole should be carefully examined, in order to ascertain how your stock stands with regard to number and condition of each individual; and when it is evident that the plants have become starved for the want of pot room, they should be shifted into larger ones at once, and cuttings put in, or layers made of such as may be wanted in greater numbers.

Towards the end of the month, all hard-wooded plants, as *Acacias, Diosmas, Myrtles*, &c., &c., should be shifted into larger pots, or, in many instances, it will only be necessary to top-dress with fresh earth; choose cloudy weather to do this work, and when the operation of shifting and tieing up to stake is finished, replunge the pots in spent tan, sand or ashes—the last is the best.

Chrysanthemums, that have been raised by cuttings or division of the roots, and that have already had one shift, may now be moved into the pots in which they are to bloom; pinch back the points of the shoots for the last time, and arranging the plants, see and give them plenty of room, in order that they may branch out laterally; water freely at least twice every week, with liquid manure.

Pelargoniums.—If these have not been headed down, this work should not be longer delayed; cut back to within a few eyes of the previous year's growth, after which they should be kept rather dry for at least two weeks; then turn them out of the pots and shake off nearly all the old earth, prune the roots well back, and place them in pots at least one size smaller than that in which they bloomed; a compost to grow them in consists of two parts of well decayed loamy sods, the other two of rotted cow manure and sand in equal proportions. Cuttings of the tops placed in two-inch pots, in a compost of vegetable mould and sand, root freely if plunged in a spent hot-bed, and partially shaded for a few days, or until they make root.

Camellias.—The present is a good season in which to shift all plants that did not undergo that operation last spring. So soon as the work is done, place the whole in a shady situation, keep the roots moist, and syringe freely overhead until such time as cold nights set in. Take off such inarches as are well united.

Gloxinias and Archimenes.—The atmosphere in which these are grown should be kept moist, and the plants well supplied with water at the roots until such time as the foliage begins to decay, when watering should be discontinued by degrees altogether.

Euphorbeas, Cestrums, Habrothamnuses.—When these are wanted to bloom strong in winter, should now be kept in a growing condition by giving larger shifts, and by liquid manures.

Mignonette, Ten-week Stocks, and other annuals for winter bloom, should be sown without delay.

Cinerarias may now be propagated, either by division of the roots or by seeds.

Heliotropes and Scarlet Geraniums.—A few plants of these should be headed in, and shifted into light rich earth; such plants will bloom freely late in the fall.

Verbenas.—When plants for early winter flowering is wanted, the easiest way to get good plants well established is to fill a number of four or five inch pots with good earth, plunge these pots in the ground under the branches of such kinds as you may wish to secure, then peg down the branches to the surface of the pots, which they will not be long in filling with roots, when they may be cut away and tied up to stakes and placed away in a cold frame. But we prefer plants raised from cuttings for spring flowers; such cuttings can be put in any time before frosts overtake the old plants.

Calceolarias.—Sow seeds now of the herbaceous kinds; the shrubby sorts strike easily from cuttings in the fall, and will bloom well in spring.

Oxalises.—Fill a few pots now of the more showy kinds for early flowering.

Roses.—In pots for winter blooms, should be pruned in and shifted into fresh soil. Those in the open grounds that have made strong shoots, may still be laid down to root; that class of Roses, known as Hybrid Perpetuals, do not as a general thing root freely by layering; while many kinds on the other hand throw out roots readily, by simply twisting the stem at the bend, where it is made to assume a vertical position, by being first pegged down and the earth pressed in behind; but the best way that we know of to produce a well rooted layer in the shortest time, is to pass a sharp knife half way through the stem upwards, so as to form a tongue from one to three inches in length, (according to the strength of the shoot;) this incision should be made in front, or opposite to where the bend or turn up is to be made, and when the peg is put down, the tongue, by gentle twist of the shoot, and bending of it upwards, is thrown in a free position past the side of the shoot or stem into the ground; this method has this advantage over the usual one, of making the tongue behind or on the side, of preventing the shoot operated upon from snapping or breaking at the incision when bringing it into an erect position, which is frequently the case, when the subject acted upon is young and tender. In the mode of making the incision we have described above, there is no necessity of putting in chips of wood, &c., &c., to keep the tongue free from the stem, as it will stand clear of itself, if the operation is properly performed.

Heathes and Epacreses.—Keep these in a cool partially shaded position, and see that they do not suffer for want of water.

Picotees and Carnations.—Continue to layer these as the grass progresses in length; make new beds of such layers as are already well rooted.

Phloxes may now be readily propagated by cuttings.

Pansies.—Make the first sowing for early spring blooms.

Dahlias.—Keep these well tied up to their stakes, and in dry weather stir up the ground around them well, then mulch with manure, and water freely at the root; clean away all suckers and lateral shoots that make their appearance within fifteen inches of the ground.

Shrubberry and Flower Borders.—Keep these clear of weeds by frequent deep hoeings; cut down to within three or four inches of the young leaves all decayed herbaceous plants, and trim into form all straggling shoots on the shrubs; roll the lawn and walks after a shower, and see to destroying nests of insects, and insects generally that are destructive to vegetation.

[For the American Farmer.]

Wax Moth, (Galleria Cireana Fubricius)—The Destroyer of the Combs of the Honey Bees.

This pernicious insect was well known to the ancients. From the earliest period in which the light of natural knowledge dawned, this class of insects has obtained considerable attention. The oldest records on this subject are to be found in the sacred writings. Moses had acquired a slight knowledge of the science from Egyptian sages, and amongst the obsolete works of Solomon, he is said to have treated of insects. Hippocrates who lived about five hundred years before our Saviour, (as we are told by Pliny) wrote about these destructive moths. Aristotle flourished in the succeeding years. He wrote a history of this moth. Whatever might be the merits of this great man, and his acquaintance with the science of nature, was the produce of undivided genius. Among the Greek writers, who immediately or within a few centuries followed Aristotle, treating on these moths, were Democritus, Neoptolemus, Philistes, Nicander, and Herodius. These writers were probably cotemporary with Pliny; and during the same period several Latin writers seem to have been induced to pursue this science, through the influence of the Greeks, who were insensibly led to it from attending to the culture of honey bees; which at that time was attended to with the most enthusiastic ardour. Aristamachus, of Soli, is said to have written on the subject, from the result of fifty years experience: Philiscus to have employed his whole life in forests and deserts attending to their history.

When we reflect on the slow manner in which all human knowledge is developed, we are readily convinced that the science of nature must have made considerable advancement since that time; and that we have derived considerable assistance from the works of more recent naturalists.

In Europe where the culture of honey bees form an occupation with a considerable portion of the inhabitants, the moth is very destructive. Its ravages in this country are very great; so much so, as to discourage many from prosecuting their culture.

It is a most notorious despoiler in the combs of

the honey bees; it not only robs the combs of their nectar stores, but scatters the terrified bees in every direction. The fact is very singular and strange, that an insect, without shield or sting, should be capable of contending successfully with a whole horde of insects, armed with the weapons of defense.

Nature has provided them with an instinct to prepare the best and surest means to defend their stores. For this purpose, they select from the colony a number of the strongest bees, which they maintain and keep as sentinels to guard the entrance to the hive, whose duty appears to be to examine every bee that attempts to enter; if it is a member of their own colony, it is allowed to pass in, but should it prove to be an enemy, the soldiers on duty at once seize the intruder. The garrison is called to arms without delay, to aid the sentinels to exterminate the assassin. There are some biting the wings, some the legs, while a flying artillery are stinging and severing the head from the body, and at the same time a regiment in the rear are stinging with their poisonous weapons the enemy. When life is extinct, a loud humming may be heard in the hive, which noise indicates their victory over their enemy, they having made the fiend suffer the utmost penalty of their law, for trying to destroy every article of furniture of their fortress. The flying artillery now take charge of the body; when all things being ready, they march with it to the door of the hive, when it is cast out to be devoured by birds; then all the bees return to their respective quarters in the fortress.

By day these moths remain quiet on the sides and in the crevices of the hives, but if disturbed any time during the day they fly swiftly away; but alas, no sooner does the sun set and daylight shuts out the view, and evening twilight draws on—the moon rising in clouded majesty unveils her peerless light on the hives of the sleeping bees, there being no danger now of their movements being discovered, they enter the hive and deposit their eggs in the combs for their future progeny, that consists of several hundred vile worms; and woe be to the colony if they have not a sufficient number of sentinels on guard to drive the moths from the combs. By what magic spell are these moths protected from the vengeance of the bees; what is the malign influence it exerts over these industrious insects, noted for their promptitude of defence? We might suppose, when we recollect who is their teacher.

As soon as the caterpillars are hatched each one spins a silken tube for itself; during the day they remain quiet and concealed in their homes, but at night when the bees are sleeping and every thing being quiet, they come and pass safely and unseen in every direction, working their way through the combs, gnaw them to peices and fill the combs with their silken webs, till at last the discouraged bees, whose diligence and power are no more use to them, cease to contend with their unseen foes. The soldiers, with their superior courage and powerful weapons are, compelled to abandon their perishing family and their ruined home, with all their stores in the possession of their terrible enemies.

What comfort may we derive under these vexatious losses? A familiar acquaintance with the bees in all their forms will afford much help. These wax moths have their appointed tasks, and are limited in the performance of them; but they are exposed to many accidents, through the influence of the elements, and fall a prey to numerous enemies. And if we examine and consider the structure of insects as well as the wise provision made for their lodgment and subsistence, we will find that all are the doings of a Being, infinite in power and fearful in working, and the religious philosopher will adopt such sentiments as David expressed when contemplating the formation of the human frame. Must we not also adopt such language as he made use of on another occasion and say, when reflecting on the manner in which these creatures are reproduced, and the wonders of that procreative power by which a continued succession is kept up; "Thine eyes saw them when they were made in secret and curiously wrought in the lower places of the earth." The business of generation must remain a mystery; we must, however, observe on the whole that each will be found most conveniently situated for its respective uses, and formed in the wisest manner for its various purposes.

Has not the Creator made the wax moth for one of the wisest purposes? For if the honey bees were as easily cultivated as the other branches of agriculture, and there should not be a sufficient amount of flowers during the season of their labors, they would be compelled to seek for sweets in every direction, even on the table of the husbandman—they would attack both man and beast, goading the latter perhaps to madness by their severe and incessant sting. So you can see that the wax moth only performs her own part in the economy of nature when her caterpillars destroy the combs of the honey bees.

There are two broods of these wax moths in a year; the first appear in May, the second in August. They lay from two to five hundred eggs. One thousand females will, on an average, produce

in May, three hundred thousand caterpillars, and in August three hundred thousand more, making six hundred thousand caterpillars produced in one season. Say one-half of this number when arrived at maturity are females, they will give ninety millions in the second, and thirteen billions five hundred millions in the third generation. Wax is their only food; a substance that cannot be digested by any other insect. The duration of their lives in the moth state is comparatively very short, seldom exceeding fifteen days. To increase and multiply is their principal business in this period of their existence, if not the only one; and the natural term of their life ends when this is accomplished. Various means have been suggested and tried to prevent these wax moths from depositing their eggs on the hive and in the combs of the honey bees. Bee houses have been erected on the most scientific plans, hives have been patented, and even additions made to the old-fashioned hives; but it does not seem that any have as yet succeeded; to be surrounded by those circumstances is indeed lamentable.

Well, let us look about and see whether there are any means provided by nature to maintain the balance between the increase and destruction of these moths. In prosecuting the inquiry, we find that birds are a most valuable auxiliary to check the ravages of the wax moth. They devour them by thousands. Which are the kind of birds so valuable? Why the wren, blue bird, king bird, summer red bird, Baltimore bird, and the scarlet tanager. Here is a whole class of birds which Providence has created for the protection of the honey bees that would otherwise blast all hopes of their culture.

They commit no depredations on the property of the husbandman, but benefit him by the daily destruction of wax moths and other noxious insects during their stay with us; and when winter approaches and the cold has driven the wax moths and other noxious insects to hybernate, even in this trying hour of necessity they never plunder the fruits or grains, but seek in a distant country for that subsistence which the severity of our season denies to their industry.

J. JACOB BOWER.

TO PREVENT TOOLS FROM RUSTING.—Thousands of dollars are lost each year by the rusting of plows, hoes, shovels, etc. Some of this might be prevented by an application of lard and rosin to all steel or iron implements. Take three times as much weight of lard as rosin, and melt them together. This can be applied with a brush or cloth to all surfaces in danger of rusting, and they can be easily kept bright. If tools are to be laid away for the winter, give them a coating of this, and you will be well repaid. It can be kept for a long time, and should be always on hand and ready for use.—*Ex.*

Butter-making.

Although we have lately published several articles under this head, the subject is one on which "line upon line" may be more or less useful, and we therefore give place to the following from the Philadelphia Farmer and Gardner, which we deem one of the best articles on butter-making that we have ever read:

The first great essential in butter-making is cleanliness. The milk-house, spring-house, vault, or whatever the place in which milk is kept, should be clean and sweet in every particular. The walls should be white-washed at least every three or four weeks, and the arrangements for ventilation should be such as will give, whenever desired, full ingress to fresh air. Pure, sweet air, is absolutely necessary to the making of pure, sweet butter. The milk-vessels must also be kept perfectly clean. This can be done only by regular and frequent washing, rinsing, scalding and scouring.

Skimming of the cream, is the next point of importance. It should be done with great care; taking as little of the milk with it as is possible. The purer the cream, the better the butter will be and the easier the churning. The cream should be churned, at the farthest, at thirty-six hours from the time it is drawn from the cow. If left a longer time, the cream assumes a strong taste, which spoils the flavor of the butter. Besides that it is more difficult to churn.

The temperature of the cream is also very important, and should receive the dairy-woman's close attention, if she wishes to save herself a large outlay of time and labor. From 55° to 60°, is about the proper temperature. If below this, the buttery particles do not separate readily, and if above it, the color, flavor and consistency of the butter are all injured.

When the butter begins to form, a little cold water should be poured into the churn, and the dashers moved slowly back and forth, in order to prevent the butter from closing too rapidly, while at the same time it gives every particle of cream a chance to furnish its quota of butter.

Where, in the winter season, but few cows are kept, and it is not convenient to have milk-room slightly warmed, as is usually done in large dairies, it is advisable to place the cream by the stove, keeping it well stirred, so that the temper-

ature may be at the same throughout the entire quantity. A thermometer should be regarded as an indispensable appendage to every dairy.—Where a thermometer is not convenient, the proper temperature of the cream may be pretty closely determined by testing it with the finger. It should feel not quite so warm as new milk.

Upon the proper *working* of butter depends much of its superiority. Machines for the purpose have been invented; but where the quantity to be worked is not large, the butter-spoon or ladle will answer every purpose. So long as a drop of milk, however minute, oozes from the mass when cut down with the spoon, so long should the working be continued.

There is no fixed rule for salting butter; some prefering more, and some less salt. An ounce of salt to the pound, is the quantity generally used. After the salt has been worked in, the butter should be allowed to stand 24 hours, and then be worked over again. By the second working, it is not only rendered more solid and compact, but the salt is more thoroughly incorporated, the streaks are avoided and the butter will keep sweet a longer time.

Manures—Their Action.

D. M. Sargent, of Warner, N. H., in a communication to the Journal of Agriculture on the action of manures, makes some statements that are worthy of note:

Ammonia, I think, beyond a doubt, is absorbed from the atmosphere by the leaves. Fill a flower pot with sand and plant a seed corn if you please; it will germinate and grow very slow, look yellow and stunted, perhaps die in a little time if nothing is done for it. But take a phial of spirits of ammonia, insert it in the sand with the mouth up and the cork loose enough for a small portion to escape, and the plant will soon turn dark green—that peculiar green that farmers like so well to see. Hide the light and it will soon turn yellow, and finally, nearly white. Exclude the air and admit the light, it cannot grow.

Take a wet spot of earth, so wet that corn will hardly germinate; prepare it as you would to plant corn, drop in nothing but gypsum, and that in only part of the holes so prepared; cover them all up, and smooth with the hoe as you would in planting corn, and after a time I can tell every spot where the gypsum is buried, and can tell if it were dropped in a bunch or scattered, by the fact that something white will collect on the surface, corresponding with the plaster below. But if you put in corn, the white powder will not be there; it will be absorbed by the growing plant. What this white substance is, I do not pretend to know, but I think, beyond the possibility of a doubt, that it is extracted from the atmosphere. Now the question arises, what part of the plant absorbs this white substance; is it the roots or leaves? I believe it to be the growing blade, predisposed thereto by the action of the escaping ammonia from the earth or the manure applied; and here comes in the effect of light mixing and perfectly combining with the ammoniacal and other gases afloat in the air and absorbed by the leaves, and with those healthy green juices which give color to the plant, and which are absolutely necessary for a full development of the plant.

I have come to the conclusion that light is matter; therefore has a body. It is absolutely impossible to grow plants without it, but if it does not combine with and form a part of the plant we could grow them without it.

Again, light is absorbed by everything with which it comes in contact. If it is not so, what becomes of it when the sun is gone? Therefore it is absorbed by plants, and as it has a body it must increase their volume.

Again, ammonia in its relative state, predisposes plants to absorb light, heat, air and all other gases that are necessary for their perfect development, while it adds to the bulk of the plant, by its own matter; therefore, manures that contain it should be so applied as to have the most direct influence upon the plant out of the ground, while juices will descend and act upon the soils and roots. But if we bury the manure so deep that nothing can escape to act upon the plant out of the soil, our crops must be small and our manure wasted, and our labor profitless.

Culture of Strawberries.

Strawberry beds may be set in August and September, or in the Spring; but if set in August, or early in September, the plants acquire considerable growth, and frequently produce a fair crop of fruit the following season; but plants set in the spring of the year seldom bear fruit the same season, or not enough to be of any value.

In the first place, I would instil into the minds of my readers, that strawberry plants require no especial cultivation over other species of the vegetable kingdom, in order to secure a good crop of fruit. Many people who have never cultivated this fruit, seem to think that there is a great deal of labor to be bestowed upon the plants, and after all, that there is no certainty of obtaining a crop of fruit. This is all a mistake, as this fruit

can be grown with as little trouble as peas or beans, and with the same certainty of receiving a remunerating crop.

For garden culture, let the ground be spaded or plowed about fifteen inches deep, having first spread thereon a good coat of well rotted barn-yard manure; then pulverize the lumps upon the surface, and rake it over smooth. Now mark off the rows from two to three feet apart. If the bed consist of one variety only, the rows may be run two or two and a half feet apart; but if of several kinds, it is best to have the rows full three feet apart, in order to keep the plants of each variety from mixing with their adjoining neighbors.

The plants may be set in rows from six inches to a foot apart. I think that when the plants are abundant, they had better be set close; but if purchased, and it is required to make them go as far as possible, set them about a foot apart in the rows, indeed, choice varieties that are scarce, may be set two or three feet apart in the rows, and the runners of the first season may be made to fill up the rows with a compact mass of plants, by guiding the runners, as they extend along the surface of the ground, and throwing a little earth upon each joint with a garden trowel, having first made a slight excavation in the ground to receive them.

Plants set early in August will sometimes throw out runners to a considerable extent; but it is the following season to which we are to look for a supply to fill out the rows. By allowing the runners to take root along the sides of the parent plant, the rows may be made to become 12 or 15 inches wide, of a compact mass of plants, which I consider good management, so long as a space is kept free of weeds and runners between the rows, wide enough to walk in, and pick the fruit easily.

Some people adopt the *hill* system of culture, but I object to it, on account of the great space of ground that it requires, over the compact row system, and the greater liability of the fruit to become soiled in the dirt during heavy rains.

In setting plants in August, they will require more watering than in September, or in the spring of the year. In garden culture, probably an application of water at evening half a dozen times, would be all that would be necessary. The plants should be set a little deeper than they grew originally, as they are liable to be thrown out of the ground by the frosts of the succeeding winter, and the deeper they are set, the less are they disturbed by the frost.

And now a few words about the *sexes* of the plants, which are male and female, and must be allowed to grow in the company of each other,—the theory being that no *pistilate*, or female plant, will be productive to the extent of its capacity, unless a *staminate*, or male plant, keeps it company. It is not necessary, however, that the modesty of these lady plants should be put to the blush, by a very close proximity of the broad, coarse-flowering staminates, with their burly stamens squinting at the fair blossoms of the pistilates; it suffices that they be a rod or more off—at a respectful distance, though I have never known of any injury to result from a closer connexion.

Some of our most experienced horticulturists recommend that a row of staminate plants be set for every two rows of pistilates, which I consider good advice, although I find that the pistilates will bear fruit abundantly, with the staminates a good deal further off. Indeed, I am now somewhat of a disbeliever in this theory of the sexes, owing to the fact that I have a bed of seedling *pistilate* plants—as pure pistilate as ever grew, situated 100 feet from any staminate varieties, and yet every flower is being set (June 6th) with fruit. Now, if it be a fact that it is necessary that the pistils of the flowers of the female plants should be dusted with the pollen from the stamens of the flowers of the male plants, how has the pollen reached my bed of pistilates 100 feet off?

The theory is—and I have to the present time been a firm believer in it—that this pollen is carried from the flowers of the male to those of the female plants, by insects—honey bees where they exist; but I have seen no bees at all upon the flowers of my pistilate plants here referred to, while the flowers of other varieties, situated nearer to my apiary, are visited by them in great numbers. This matter—the theory of the sexes of the strawberry plant—should be investigated, and the public should be informed more fully in regard to the alleged necessity of setting staminate plants near to the pistilates.

There is another class of plants, called *hermaphrodites*, the flowers of which contain both pistils and stamens; the pure staminate flowers containing stamens only, while those of the female plants contain pistils, but no stamens. The distinction is readily seen on examining the flowers of the different kinds of plants.

It should be understood that both hermaphrodite and staminate plants are self-fructifying, and require no other kind to be set in connexion with them.

Had I space, I would make extended remarks

on the most popular varieties of the day; but the opinions of growers of this fruit, on varieties, change with each successive season, as new kinds are introduced. As a *bearer* merely, nothing, in my opinion, and according to published reports, equals the *Wilson Seedling*, sometimes called the Albany Seedling; but it is a little more acid than is desirable. This is an hermaphrodite variety, and requires no other kind to be set with it. It is, I think, the most desirable kind for both garden and field culture, that is now offered for sale.—*Genesee Farmer.*

Cavalry Horses.

The following suggestion from the old "Spirit of the Times" are worthy of consideration at this time.

"A few years ago we told them calmly, plainly, and emphatically, they would rue the day when they permitted racing to die out; that the time would come when they would need the courage, the endurance, of the racer in their breed of their horses. We were laughed at for our pains, and men who ought to have known better shrugged their shoulders, remarking that it was our *business* to talk thus and so. The day which we prophesied has come; yea, verily, we can ask where are your horses? where are your chargers? where is the cavalry to come from to prosecute the war you have undertaken? It is thoroughly understood by all who have any knowledge on the subject that men high in authority in this State insist that we cannot mount a regiment of cavalry properly. When this was first bruited abroad people looked at each other in utter amazement; but such is the case—we have no horses.

What a laughable sight it would be, were it not so serious a matter, to see a thousand men mounted on a heterogeneous lot of horses, crossing over a plowed field with a ditch at one end, the Connestogas stumbling in their efforts to raise their feet over the ridges, falling when forced to a gallop, the trotters trying to keep up at their unnatural gait, and the hacks that could gallop a little, after reaching the ditch, tumbling into it or trying to wade through instead of clearing it with a single bound, and worse than all would be the action of these brutes when within sound of the cannon's roar, shying, turning, twisting and running away at every explosion; and as for attempting a charge at cold steel, the sight of the bayonets glistening in the sun would make their hearts burst with very terror.

A first success is often more ruinous to a man than a series of petty defeats, for the one gives him an overweening confidence which may lead to his utter destruction; the other teaches fortitude and the means by which misfortune is to be overcome; the parallel is true of a nation.

When the Mexican war was first commenced we told the people that our cavalry was in a state of utter inefficiency, but coming in contact with an effete race of men, and, if possible a more abused race of horses than the people of the country; a country in which the owners of large stocks of horses preserve as stallions only those animals which are, deformed by nature, and would not bring a remunerative price in the stock market;—to such horses and to such a race of people we were opposed, it is therefore not to be wondered at that our own deficiency was not exposed, so easy was our conquest. So determinately were all our friends of opinion that a war could not be brought about except with an inferior race, that a cold shoulder has been turned to all our efforts, and the tests of a horse's value have lost interest to all but a very few.

The great advantage of cavalry is, after the enemy's ranks have been broken by the fire of artillery or a charge of bayonets by infantry, for them to get among the men and prevent the reforming of the ranks, completing the temporary disorder and causing it to result in a total rout. To accomplish this result, horses and riders must be thoroughly trained, capable of performing every evolution with precision and rapidity; the horses must possess endurance, courage, and speed; the latter quality is as necessary as the two former, otherwise the important moment may have passed, ere the cavaliers reach the enemy's lines, and they in turn be met with a warm reception; for if charging a line of regulars prepared to greet them their destruction is almost inevitable, yet when brought to bear on militia the opposite result is nearly every instance to be anticipated, volunteers generally breaking before a body of cavalry as they do when charged by the bayonet; under such circumstances a well-organized body of horse are a most valuable auxiliary on the field of battle when you are opposed to raw recruits; veterans care nothing for a cavalry charge except when already broken, and then when the horse penetrate their lines and get between man and man, and commence the business of trampling them down while the riders use their sabres with terrible effect, then are the foot soldiers fully aware that their glory and honor is departed for that day, and their only hope of safety is in flight, which is at best but a poor recourse. The weight of the horses, the men, and their accoutrements, is a matter for

very serious consideration. Horses could not be too large or heavy, provided they could have the proper speed and endurance, in both of which qualities the majority of large horses are lacking. If animals cannot in these days go faster than a trot, or a hand gallop, we might as well return to the use of the elephant as expect to derive any material advantage from a lubberly brute; therefore experience has taught that we must use a smaller, more compact, and purer bred horse. The English hunter comes nearer to the standard of what a cavalry horse should be than any other animal of which we have cognizance; he is very nearly thoroughbred, possessing all the virtues of the latter except extraordinary speed, but this defect is counterbalanced by an increase of stoutness. The next point for our consideration is the size and weight of the men. In former days it was customary to select the largest, strongest, and longest-limbed men that a country would afford, but recent experiments have shown that much lighter and smaller men could be used to greater advantage; that 145 pounds is the maximum for a rider; that himself and his accoutrements should not weigh more than 170 pounds.

Manuring Grass Lands.

Fisher Hobbs, of England, well known in this country as a breeder of Essex hogs, at a recent agricultural meeting remarked—

"He had heard it stated that some of the finest old grazing pastures in England, including some in the Vale of Aylesbury, were some years ago very much injured by being over-mown. He had always considered that the farmers of England never paid sufficient attention to the varieties of grasses which they cultivated on their pastures. They paid great attention to varieties of root and varieties of wheat, but little attention to the varieties of grasses on their land. It had been said by some of the best authorities on the subject, that a square foot of turf should produce at least 28 varieties of grasses. Many of the best grasses, if mown at certain periods of the year, were thereby checked, and coarser grasses were apt to take their place. He was therefore very much inclined to the opinion that pastures which were adapted for the production of beef should seldom if ever be mown; and that low lands, where coarse grasses fructified the most, should alone be given to the scythe."

MANURING GRASS LAND.—At the same meeting, Mr. Hobbs said:—"Before sitting down he wished to remark that having tried several modes of manuring permanent pastures, the conclusion at which he had arrived was this: where a large portion of the land of the farm was arable, and where there was plenty of manure made from roots and straw, commonly called farm-yard manure, there was nothing so good as a small quantity of unfermented manure spread upon the land, during wet or tempestuous weather in June or July, as soon as possible after the grasses are mown. He himself generally applied eight cubic yards per acre. He might add that he had found the bean-straw cut into chaff produce an extraordinary effect when applied as manure. Having had experience with regard to some twenty or thirty different manures, he had come to the conclusion that oil cake was the best for improving first-class grazing land."

The oil-cake, of course, is not used directly as a manure, but fed to the animals on the grass land—*Genesee Farmer.*

Surface Manuring.

Opinions change in regard to the manner of applying manure as well as on many other subjects in the scale of progression and improvement. The farmers and writers of earlier times advocated the practice of spreading manure fresh from the yard and turning it immediately under with a plow, without allowing it to be exposed for any length of time to the sun and air, lest it should dry and part with its volatile gases. Long or unfermented manure was considered the best for this purpose, because it was supposed that the process of fermentation would progress after being plowed under, and the ammonia with which it parted while undergoing this process would be absorbed and retained by the soil. It was conceded that there was some risk in applying manure in this way, which was generally applied to hoed crops, such as corn and potatoes, because, if the season proved a dry one, and the quantity of manure plowed under was large, the crop was more likely to be burned up than if no manure had been applied. But if the season continued wet, the decomposition of the manure went on, and, the crop deriving the full benefit of the application, the harvest was much increased. But in the succeeding crop of wheat, or other small grain, still greater benefit was derived from the manure.

All this looked very well in theory, and even among its strongest advocates the error in its practice was not discovered. More recently many experiments have been made on different modes of applying manure, and we believe it has been established, beyond a doubt, that the most wasteful and the least beneficial practice, is that

of plowing under manure in its fresh or unfermented state. These experiments further prove that the most marked beneficial effects of applying manure, is in a liquid state. This method, probably, is attended with more trouble and inconvenience than by any other mode of application, and hence it is only where the greatest necessity for manuring exists that this method is brought into practice. It may not be amiss, in this connection, to remark, that the liquid manure from the stables and the yard, the drainage of the entire accumulation for the season, not only is the most valuable portion of the manure, but unless applied in the liquid state, it is generally entirely lost.

In some few instances among the better farmers, yards and stables are so arranged that with a good supply of muck, or similar absorbent kept on hand, to be employed, as occasion may require, this most essential part of the manure is prevented from running to waste.

In applying the dry or more substantial portion of the manure, repeated experiments have proved that the greatest benefits are derived from surface application. The time or season of applying the manure depends on circumstances. If on land in grass that is intended for corn or potatoes, the best time to apply the manure is early in the fall, spreading it evenly over the surface in a fine, decomposed state. This stimulates the growth of grass, which when turned under for the spring crop adds at least double to the quantity and value of the manure in the increase of blades and roots to the grass, which decay and impart sustenance to the growing crop throughout the entire season.

Manure when applied on thin, poor places to a crop of wheat, has been found vastly more beneficial when spread upon the surface than when plowed under.

The same preference is given to surface manuring for spring crops, whether in field or garden. Let the ground be first broken up, then spread the manure and scatter and divide it by the use of the harrow. Manure can only be appropriated by growing plants in a state of solution. The water from the dews and rains, as it descends from the surface, carries with it the manure in solution to the roots in the growing crop just where it is most needed, while the bulky portions remain upon the surface to keep it moist, light and mellow. When manure is buried six or eight inches below the surface with a plow, the most of the available portions (that which is in a liquid state) filter still deeper into the soil below the roots of the plants, and is, in a great degree lost, while the undecomposed portions of the manure below the surface tend to check the free circulation of moisture in the soil and increase the evils of drouth.

In enriching trenched ground for garden and vineyard purposes, where the sub-soil is to be renovated, if manure is to be employed it should be made into compost by the combination of decayed turf, scrapings from the fence corners, deposit from basins, &c. In this case the object is different from that of applying manure to annual crops.

Manure should be well decayed and fine before it is applied to the land. But the most important part of the whole question of manuring, is that connected with the place and manner of making it. The barn-yard should be so arranged as to retain all the liquid portions of the manure with the least possible waste from washing rains; to avoid this many farmers have barn cellars, or cast their manure under sheds, so arranged that all liquid manure from the stalls is secured and absorbed by straw, muck, &c., kept on hand for the purpose.—*Valley Farmer.*

Lavender Farming.

Our readers will be interested in the following account of the cultivation of the lavender in England, for distillation into perfumery. The writer says:

In this little island, no less than about 270 acres of its precious land is devoted to lavender farming. Every acre yields about 200 lbs, of flowers, every hundred pounds of flowers giving up by distillation, about one pound of the otto of lavender, and thus we learn that there is an average production of about 7,000 pounds of lavender otto annually. It requires six ounces of this to make a gallon of lavender water, so that Brittania and her children—you know their names—Jamaica, Canada, Australia, together with a few visitors, America, Germany and Russia, use and take home with them the enormous sum of 17,000 gallons of this favorite spirit.

These lavender farms are situated in Surry and Herefordshire. The lavender when in blossom, is resorted to by all the bees for miles around. The sound of their hum in such vast numbers is quite enchanting; nor do the butterflies neglect to visit so luxurious a feast, the taste of which appears to be particularly grateful to them. The bees' love for the lavender is so excessive, that at the harvest time they will follow it even at a sacrifice of life into the still.

Meteorological Observations *kept at Schellman Hills, Carroll Co., Md., Sykesville P. O.,* JUNE, 1861. (*Reported for the American Farmer.*)

DAY	THERMOMETER.				WIND.			RAIN	REMARKS.
	7 A. M.	2 P. M.	9 P. M.	D'y Mean.	7 A. M.	2 P. M.	9 P. M.	Inch's	
1	63	79	66	69½	S.E.	S.E.	E.	¼	7 A. M. began to rain; end 8 P. M.; cloudy.
2	65	76	73	71⅓	S.	S.	S.E.	..	Clear.
3	70	80	75	75	S.	S.W.	S.W.	¼	Cloudy; shower; 9 P. M. fine rain; end in the night.
4	70	63	65	66	N.W.	N.E.	N.E.E	¾	Rain 8 A. M.; 6 P. M cloudy.
5	50	60	55	54½	N.E.	N.E.	N.E.N	..	Cloudy.
6	53	66	60	59⅔	N.E.	N.E.	S.E.	..	Mist; cloudy; clear.
7	63	70	62	65	E.	E.	N.E.	..	Cloudy.
8	63	73	65	67	E.	N.E.	S.E.S.	1	Cloudy; 10½ A. M. gust; end 11½ A. M.; clear.
9	64	74	69	69	N.	S.	S.E.	..	Clear.
10	63	84	79	75½	S.E.S.	N.	N.W.	..	Clear.
11	68	80	75	74½	E	W.	W.	..	Clear.
12	70	83	73	78⅓	W.	W.	W.	..	Clear; shower.
13	67	78	65	70	W.	W.	W.	..	Clear.
14	64	70	70	68	W.	S.W.	S.E.	..	Clear.
15	79	87	83	80	S.W.	S.W.	S.	..	Clear.
16	74	78	67	73	W.	W.	N.W.	¼	Clear; shower in the night.
17	59	70	61	63½	N.W.	N.W.	W.	..	Clear.
18	62	73	65	66⅔	E.	E.	W.	..	Clear.
19	63	73	72	69½	W.	S.W.	S.E.	..	Clear.
20	67	80	75	74	N.E.	N.W.	W.	..	Cloudy; clear.
21	67	80	80	75⅔	E.	S	W.	..	Clear.
22	73	80	73	75½	N.W.	N.	W.	..	Clear; shower at daylight.
23	70	82	76	76½	N.E.	S.W.	W.	..	Clear.
24	66	77	67	70	N.W.	N.W.	W.	..	Clear.
25	66	78	72	72	E.	S.	S.E.	..	Clear.
26	72	82	75	76½	S.E.	S.W.	W.	¼	Cloudy; clear; cloudy; rain 8⅓ P. M.; 9 P. M.
27	70	78	72	73	N.W.	W.	W.	..	Clear. [end.
28	71	79	75	75	N.W.	S.W.	W.	..	Clear; shower in the night.
29	66	75	68	69⅓	N.W.	S.E.	S.E.	..	Clear.
30	67	68	65	66⅔	S.E.	S.E.	W.	¼	Cloudy; rain began 10 A. M.; end 4 P. M.; cloudy.
..	..	..	..	..	..	..	..	..	

Monthly Mean, 70⅔. 3 inches Water fell.

HARRIET M. BAER.

Cooking Meat "Scientifically."

Poor meat rightly cooked, is often better, more agreeable to the taste, more readily digested, and affords more nourishment, than good meat not properly cooked. A piece of tough, tendenous beef contains quite as much nourishment as the same weight of tender steak, for the latter contains a larger proportion of water. But in the usual process of boiling, most of the flavor and much of the real substance of tough meat are lost before it is made tender enough for eating. A plan for boiling tough meat, which we have before referred to, is so valuable as to be worthy of discussing again. The process is applicable to beef and mutton, fresh or salted. If corned beef, it should first be soaked in cold water until quite fresh enough to be eaten. As above hinted, a piece of tough, cheap beef, will by the process become quite as good as that which cost twice as much a pound.

Put into a kettle the fresh beef, or mutton, or the freshened corn beef; cover with hot water, and set it to boiling. Put upon the top of the kettle (or better, fit into the top,) a tin pan that will close it as tightly as possible. Nearly fill the covering pan with cold water, and replenish it, when it evaporates. The boiling of the meat is now to be kept up for three to six hours or more, or until the meat is cooked "all to pieces," that is, made perfectly tender, so that it no longer adheres to the bones, and will not even hold together to be lifted with a fork. The main point is to boil it long enough. The kettle can stand upon the back of the stove from morning until night if need be; slow boiling is about as effective as fast boiling. If water boils at all, it is heated 212°, and is no hotter than this when boiling ever so furiously.

The "science" of this process is in having the pan of water for a cover. The rising steam, which if allowed to escape, would carry much of the flavor and substance of the meat, is condensed upon the bottom of the pan, and falls back into the kettle, so long as the water in the covering pan is below the boiling heat. The covering pan may be improved by bending it down a little in the middle, so that the condensed steam will drop back from the centre. If the boiling be so rapid as to heat the water in the covering pan also to boiling, the water may be occasionally changed for cold.

When thoroughly done, dip out the meat with a skimmer, remove the bones, and put the meat into a pan or deep dish. Leaving the cover off, simmer the pot liquor down to convenient quality, and mix it with the meat. Now cover it

with a plate, and put on a quantity of weights—sad-irons, or a stone, or any other convenient weight—and set it aside to cool over night. The liquor will form a hard jelly with the meat, and the mass will become a solid piece, having the form of the containing dish or cover, and will be in nice order to place upon the table, for a substantial meal or a cold relish. It is a good preparation for a Sunday dinner; and as it keeps well, it is good to have on hand for an emergency. It can be cut into nice slices, and will be tender, juicy, very palatable, easily digestible, and nourishing. If fat and lean bits be mixed together, the slices will present a beautiful marbled appearance. If the meat be quite fat, the pot liquor may be first cooled and the fat removed, and afterwards be boiled down a little, and then poured on the meat as above described.—*American Agriculturist.*

How to keep Eggs a Year.

It has been an interesting question, and one that has been argued and experimented on from the earliest history of the world to the present day, namely, the best, cheapest and safest mode of putting up eggs to keep good the greatest length of time. Nearly every farmer has experimented on it more or less, and the longest I have ever heard of eggs being kept was six months, I believe.

But I think I have struck a plan (or rather the hen struck it,) that will settle the question for all practicable purposes. The discovery was in this wise:—Over a year ago, I had some hens laying in a holiow gum, filled or nearly full of unleached ashes; the gum was upset by accident, and I paid no further attention to it, until I needed some ashes this spring in making mortar. In taking the ashes off the ground at the end of the gum, I dug out four eggs that had been lain there one year ago; they were perfectly sound and good. We used one immediately after finding them, and kept the others four weeks and then used them, and found that they were as good as if they had not been laid a week. There is no doubt that these eggs were laid in the unleached ashes, previous to the gum being upset, over one year ago; the upsetting covered them with ashes, which were leached in course of time by the weather. Let some of your readers try this, and satisfy themselves that eggs can be kept fresh and good one year. I am trying the experiments with a larger lot, and will let you know how it succeeds at the proper time.

A. C. PHELPS,

Hood River, Oregon, April 8th, 1861.

Brahmin Cattle.

Chas. G. McHatton, of Bridgeton, St. Louis Co., Mo., is a large breeder of these animals. His herd is well worth visiting. The animals possess a very fine skin and exhibit a very neat appearance. He says:

The following specifications embody the chief advantages claimed for the stock, and clearly show that they cannot but prove an invaluable accession to the working animals of the South:

1. They are of fine size and beautiful proportion, and possess wonderful activity, strength, and power of endurance.

2. They are perfectly adapted, by their peculiar organization, to the climate of the South, as they endure in their native country greater heat and fatigue than they would here ever experience.

3. Their milking qualities are equal to the best of Southern stock.

4. They are thrifty, and keep fat on scanty pasturage; and their beef is equal to that of any other stock, having been tested, in Lexington, Kentucky, by many of the most respectable citizens.

5. They have been fully tested in the South, and the most sanguine expectations realized. Out of 150 sold, only one is known to have been lost, and that through accident.

They were first imported from the East Indies by Dr. James B. Davis, of South Carolina, whose observation of their superior excellence at home, induced him to make the attempt to introduce them into the United States.

Martin in his celebrated work on cattle thus describes the Brahmin Ox, page 22:

"The large Zebu, or Brahmin Bull, is certainly a noble animal, and much more active than any of our breeds. These animals are used in India as beasts of draught and burden, and also for the saddle. We learn that Lieut. Col. Skinner of Danak, on the borders of the Bichaneer desert, 100 miles west of Delhi, maintains a large stock of them; and six or seven beasts are always kept saddled to carry the military dispatches. They remain saddled three or four hours, when, if not wanted, they are relieved by fresh ones. They will travel, with a soldier on their back, fifteen or sixteen hours in the day, at a rate of six miles an hour. Their action is fine, and they bring their hind legs under them in as straight a line as a horse. Such is their activity that they can clear a five barred gate with ease."

Thevonot says, (Relation, vol. iii. p. 151,) "As the Oxen of India are by no means ungovernable, there are many persons who employ them in traveling, and who mount them as they

do horses. Their ordinary gait is easy. The animal is saddled like a horse, and when a little excited into action it goes very quickly; some, indeed, gallop as well as a good horse. These cattle are in general use throughout the whole of India, and they use no other in plows, coaches, and chariots."

"The two oxen," says Travenier, "which were harnessed to my carriage, cost me nearly 600 rupees. The reader need not be astonished at this price, for these are oxen of great strength, and which travel journeys of 12 to 15 leagues a day, for 60 days, and always on the trot."

Lowe, on his work of Domestic Animals, page 261, thus speaks of the Brahmin Ox:

"The accumulation of fatty matter on the shoulder of the ox, may not unreasonably be regarded as a natural provision fitting him for countries of immense heat. The hump of the camel seems to be a similar provision for the accumulation of nutrient matter, and may be supposed to be connected with the extraordinary patience under abstinence from food, which distinguishes this child of the desert. The fatty hump of the ox of warmer countries may thus be regarded as an adaptation of the animal to the condition in which it is placed."

The chief advantages of the Brahmin Cattle, consist in their speed and strength, in both of which they surpass any of our breeds, and their adaptation to a Southern climate.

CHAS. G. McHATTON.

Early Cut Hay for Milch Cows.

What is the best time for cutting hay for dairy cows?—should it be cut at the same time for all kind of stock?—are practical questions which every dairyman must consider at each season.

The state of the maturity to which grass should arrive before it is cut, is a point about which men differ materially. The different dispositions which are to be made of the hay, doubtless modifies to some extent the conclusions at which they arrive. Some think it should stand till the seed is full and the stems get pretty well ripened, because it is then heavier than before. Others think it should be cut when in full bloom or before.

There must either be little or no difference in the quality and value of late and early cut hay, or else the observers are at fault. Practical men are pretty well agreed that for horses it should not be cut till it is out of the blossom entirely, and the seed begins to fill, and that for calves it should be cut when in the blossom or before.

This is a concession by the farming public, that it is considerably modified in quality by standing, and this modification should be understood.

The truth is, there is the greatest amount of matter that may be used as food in a given field of grass, when it is in full bloom, and the value of that food for a few days afterward varies but little, though in weight and bulk it may vary considerably. But there is quite a difference in the kind or quality of food before and after it is in blossom. Before it is in bloom its extractive matter, which is used as food, contains a greater percentage of starch, gum, sugar and fat, especially yellow fat; and after it has passed the bloom it has a greater percentage of flesh-forming material along with woody fibre and mineral matter. In the former period, it contains more elements of respiration, the source of animal heat and fatness; and in the latter, the foundation of muscle.

These different qualities have their uses. The horse by his vigorous exercise maintains his proper warmth, to a considerable extent, by the rapid waste of tissue and muscular fibre, and hence especially in warm weather, can labor and travel better on the less heating, late cut hay.

But in the young animal, as the calf, the heat derived from the waste of tissue is comparatively but little, and hence the early cut or more heat-producing hay is wanted; and besides, the green food is more easily digested.

A cow when giving milk does much the best upon the same kind of food preferred by the calf, because she derives her warmth not by exercise, but by her food directly. To maintain her condition and give milk, a cow must be fed on food rich in the elements of fatness. It is impossible for a cow to give a large quantity of rich milk on late cut hay, without growing poor rapidly; because it does not contain the material from which the milk can be formed, and is, withal, so slow of digestion, that she can do but little more than digest enough to support herself.

It must be evident to every one who will consider the matter attentively, that hay for milch cows is not improved by standing after it has blossomed, but on the contrary is as profitable, especially to feed out in the spring, when cut as soon as it begins to blossom or even before, and that as dairymen we err, most of us, in not beginning our haying soon enough.

There is, I know, but little use in showing by argument when hay is best cut for any purpose. It is a point that must be settled by practice rather than philosophy. I have experimented till I am fully satisfied that I have suffered annually a serious loss by letting my grass stand too long before I commenced cutting. I have done as a

majority still do, waited till I supposed it had reached its full size before I begun. I have had too much regard to bulk and weight rather than quality.

If any reader is sceptical about the greater value of early cut hay for producing milk, especially clover hay, let him try it; let him cut some late and some early, and fodder it out any way that will satisfy him conclusively as to the value derived from each from a given area of ground, and my word for it, if he has been in the habit of waiting till his grass has reached its full weight, or even its full size, before he begins, he will start earlier next year.—*Dairy Farmer.*

Leached Ashes as a Fertilizer.

Ashes, in any and every form, constitute a good and valuable manure. Nature has wisely ordained that no substance which has once been stimulated by the identifying and vitalising principle of life, shall ever be lost. Under some form it will still possess energy and identity, and be capable in some way, of contributing to the reproduction of vegetable life. The inorganic parts of plants, the ash, or residuum left after incineration, beautifully illustrate the verity of this remark. All crops take something of an earthy character from the soil on which they grow. If we apply gypsum to our clover ley, we shall find that the ashes of the crop, will, in part, return it to us. Lime and potash also, are in like manner taken up by vegetation, and consequently are to be regarded as essential to vegetable life. In ashes, after they have been deprived of their potash in the leaching establishment of the potash maker, there exists always a certain percentage of lime; and hence the application of soap-boilers' waste or leached ashes to lands deficient of calcareous matters, is always found to be decidedly beneficial. Applied to grass lands, as a top-dressing, it produces a new and more vigorous action in the circulatory system, stimulating the torpid organs, and pushing forward the development of the plants with astonishing rapidity. On corn lands its effects are equally happy. Wheat, also, is very much benefited by ashes applied either as a top-dressing at the rate of twenty or twenty-five bushels to the statute acre, or as an ingredient in compost, the latter to be applied in all cases admitting of it, before the wheat is sown.

On a piece of corn of about one-half an acre, I applied five bushels of hard wood ashes that had been thoroughly deprived of their potash, by leaching. This quantity was disseminated as evenly as practicable over first one-half the piece, or one-quarter of an acre, the whole having been previously prepared for the crop by a tolerably liberal application of long, or unfermented stable manure, *"turned in."* There was no difference in the soil, which was all of a light and remarkably friable texture, being composed of an excess of sand.

The part on which no ashes were applied, in consequence of the action of the manure, produced a most excellent crop; but that on which the ashes were bestowed exceeded the other by more than one-fifth, both in the weight of the crop and the soundness and uniformity of the grain. There was also nearly a correspondent gain in maturing for the ashed part was ripe and ready to cut long before the other, and there was not a "pig" or unsound ear in the lot.

On fruit trees, no stimulus that can be applied is uniformly so genial and obviously efficacious, (if we except, perhaps, salt, and this is not so apparently beneficial to all,) as ashes. If an old tree has passed into senility, and ceased to produce fruit, it may generally be rejuvenated by carefully scouring the bark—the bark of the limbs as well as that of the trunk—with a mixture of water and wood-ashes, and applying a bushel or two about the roots. The soil should be carefully removed from around the trunk, and the ashes applied in conjunction with well decomposed forest mould, or old compost that has become perfectly comminuted or fined by age. As to the effects of leached ashes we have the most ample testimonials from men whose asseverations are entitled to the most unquestioned credit.

Judge Buel of Buffalo, says:—"Leached ashes or soap-boiler's waste, which contain always a quantity of lime, I have used with advantage for wheat."

Mr. Coleman, in his able and lucid "Report on Agriculture of Massachusetts," observes:—"Ashes, leached or crude, have been applied with various degrees of success. A farmer of high authority in Newbury, says:—'I think leached ashes very valuable to spread on grass; also on onions and wheat. I use twenty or thirty cart loads. I gave, this year, three dollars a load of thirty bushels.'

An able writer in discussing the subject, says:—"Of all things to make grass grow, ashes are the best. This you may depend upon, for I have tried it often, and it has never failed yet. Just collect together all you can, and the more the better, and apply them to your grass lands and see if I am not correct in my assertion."

Another late writer observes:—"Wood ashes are most valuable as manure for high, dry land,

of a sandy character, and which, in summer, is liable to injury from drought. I know some farmers who never sow down a piece with grain and grass seed, without applying a dressing of leached ashes (when they can get them) at the rate of about one hundred bushels to the acre."

It is not, perhaps, necessary in very many cases to apply this large quantity. From forty to sixty would be a very liberal dressing for soils, yet I have no doubt that the more one can afford to apply, the better it will be for the crops—especially on high, dry and light sands.—*Ger. Tel.*

A Swine Pasture.

The practice of good farmers differs in regard to the pasturage of swine according to their varying circumstances. In the East, where the country is most densely populated, and pasturage is scarce, the prevailing custom is to keep pigs in the pen for the greater part of the year. The best farmers consider the pig too valuable a laborer in manure making, to allow him to waste his energies in roaming the fields. Breeding swine, both males and sows are allowed a little license in green pastures, but the rest of the herd, from the age of two months until they are slaughtered, are kept in close pens, and fattened as rapidly as possible. Under this system, pigs from ten months to a year old are made to weigh about three hundred pounds each, and to manufacture about ten dollars worth of manure. This system is undoubtedly the best where all the pasture is needed for cows and sheep, and where large quantities of manure are needed for the hoed crops.

In the West and South, where land is cheaper, good farmers rely mainly upon pasturage to keep their swine growing through the summer. In the newer settlements they run almost wild in the woods, and derive a large part of their living from mast. Manure is little prized, and the only value of the pig is his flesh; when slaughtered. Without committing ourselves at all to this method of making pork, it is conceded, that under certain circumstances it is desirable to have swine get their own living.

What sort of a pasture shall be prepared for them? A correspondent wants to know if rye is the best article for them. Rye is only reliable for a few months, and if sown at all, should be sown in connection with clover and grass seed, to make a permanent pasture. M. W. Phillips, a large planter of Mississippi, has discarded rye, and now sows a mixture of clover, oats, and barley. There is unquestionably a good foundation for the proverb: "living like pigs in clover," and whatever seeds are sown, clover should have a prominent place among them. It furnishes a larger amount of leaves, than any of the grasses, and is greedily eaten by swine. They are not very particular as to the kind of green food they have, and a farmer may consult his own convenience as to the kind of grain, or grass he stocks his pasture with. Variety is better than any one kind.

After the pasture is stocked, it would be better not to feed with swine the first year, unless their noses are jeweled to keep them from rooting. It should not be fed closely. A frequent change from one field to another is desirable, both for the thrift of the plants, and of the animals. Pigs to be fattened, should be taken out of the pasture as early as the first of September and kept in close pens. They can then be kept economically upon corn cut by the roots, for two months, and finished off in November with old corn, or meal.

Where a regular rotation is pursued, the last year of a field of grass may be devoted to the swine pasture. As the field is to be taken up in the Fall for wheat, rye, or some other grain, it will be of little consequence if the turf be destroyed by the rooting of the swine.—(*American Agriculturist.*

Wheat Growing Countries.

A late number of a New York paper contains an article on wheat culture, from which it seems ours is not the greatest wheat producing country, both France and Britain exceeding it in average yield. Our last year's crop is assumed to be 180,000,000 bushels, but the average is probably only 120,000,000—and as our system of agriculture is exhausting the best lands, a diminution of the yield is anticipated. The average yield of other countries is stated as follows:

France	191,422,248
Britain	145,300,000
Two Sicilies	64,000,000
Canada	60,470,134
Spain	46,914,900
Austria	27,735,568
Sardinia	19,975,000
Russia, ex. only	18,921,776
Belgium	13,350,000
Portugal	5,500,000
Turkey, ex. only	4,529,000
Holland	3,000,000
Denmark	3,000,000
Sweden and Norway	1,200,000

"Here is an annual production of over 606,000,000 bushels. If the crops of this continent are included, the total may be safely assumed to be 900,000,000, as the unascertained product of Russia and Turkey must be very large. No better evidence of the primary value of the wheat plant to the human family could be given than such an exhibition as this. It proves that where the highest civilization has been attained, there the greatest production is realized."—*Ex.*

The Curculio.

A late number of the Horticulturist contains a communication from an old and well known cultivator of Cincinnati, reviewing and criticising the different modes which have been adopted for destroying or eluding this troublesome insect. He says, "some shake the trees. I believe this would be a safe remedy if they would begin at daylight, and shake the trees till night, not even leaving the trees to eat their meals." We entirely agree with him. Where the insects are not abundant, a less frequent or continued shaking might answer. But this "*shaking*" must not be confounded with the greatly superior process of *jarring* the insects on sheets and *destroying* them. Many have merely tried the first remedy occasionally, and from its failure have denounced the latter, supposing them to be nearly identical. There is scarcely any resemblance between them. Shaking repels or drops only a portion of these depredators; many remain fast in the tree. Go to a tree that contains twenty curculios, as is sometimes the case where they have been unmolested; *shake* it, and perhaps one-third, or possibly one-half, will fall; *jar* it with the hand, or strike it with a mallet wound round with cloth, to prevent bruising, and perhaps one half of the remainder will fall; strike it sharply with the back of an axe, and every one will come down. All this we know from experience. (To prevent bruising, a limb should be sawed near the body of the tree, leaving a stump an inch long to receive the blow.) Now it will be observed that there will be enough left after the shaking to puncture all the fruit, or even after the soft jarring, which is a sufficient reason why these modes have failed, or but partially succeeded. The daily or twice daily jarring must be continued for several weeks, in order to kill the new comers which daily appear. By intermitting two or three days the fruit may be all stung, which is another cause of failure. It is not necessary to cite the many instances we have witnessed where the jarring and killing process has proved completely effectual. Shaking alone, without killing, which appears to be the mode alluded to by the correspondent of the Horticulturist, can accomplish but little, unless constantly repeated, as the insects will soon find their way back to the trees.

The next mode which this correspondent alludes to, is the use of "various washes and fumigations of horrible odors," and "offensive manures under the trees." He thinks these might succeed, but adds, "I should not wish to live in the house, nor make the family a minute's visit," where these odors fill the air. "If they would not meet the approval of the curculio, they would not meet mine."

He recommends planting trees so as to hang over water; but this would be inconvenient, and often impossible, and the editor remarks that it has repeatedly failed.

He especially recommends paving under the tree. This would prevent a future crop being destroyed, as the larvæ could not escape into the earth, and must consequently perish on the hard surface. It will not kill the insects of this year, nor cure the fruit already stung, and is precisely similar in its *results* to the pig-and-poultry remedy, and Ellwanger & Barry's mode of beating the earth smooth and sweeping up daily the fallen infested fruit—all three destroy this year's worms, and save next year's supply. The jarring and killing method, saves the crop of this year, and has therefore by one year, the start of the other three. These four remedies are the only ones of any value. The pig-and-poultry, and the jarring process combined, constitute the most efficient cure for the evil.—*Ex.*

Summer Pruning Apple Trees.

It is a pretty well established fact that apple trees—and we would add pear trees—pruned from the middle of July to the middle of August sustain the operation with much more advantage than if pruned at any other period of the year. If pruned at the time, the wound will heal over, and make, what surgeons would say of a properly amputated arm or leg, a handsome stump. If the branches be lopped in winter or spring, the stump generally leaves a perpetual scar; and if after the sap has commenced flowing, a bare bone as it were, projecting from the living parts of the tree, and remaining there until it rots away, when frequently the decay continues on, as a sort of gangrene, into the very heart of the tree, much to its injury. Who has not observed this in his experience?

We have more than once witnessed the benefits of pruning in midsummer, and have always been impressed with the advantages over the system generally pursued. On one or two occasions, some years ago, we adverted to the fact, and now again call attention to it, especially as the season for trying it is at hand.

Six or eight years ago, a first-class farmer upon a leased place, trimmed the apple trees in midsummer, at which the landlord who had greater pretension to farming than his tenant, was very indignant, and threatened a suit for damages; but in one year after, when we saw the stumps, a more perfect success was never accomplished.—*Germantown Telegraph.*

The American Farmer.

Baltimore, August 1, 1861.

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WORTHINGTON & LEWIS,

Publishers of the "American Farmer,"

BALTIMORE, MD., and RICHMOND, VA.

☞ We beg to remind our friends of the great importance to us of a prompt settlement of the little bills sent last month. In the great prostration of our advertising business, we are entirely dependent on our subscription list for support. It is a small thing to each subscriber to settle with us, and a great thing to us that they all do so. Do not fear to send by mail.

Maryland Agricultural College.

We beg to call the attention of parents to the fact that the Maryland Agricultural College will open its fall session on the 5th of September.

Let us urge upon all who feel the importance of building up so important an institution in our State, and who have due regard for the physical, as well as the intellectual and moral culture of their sons, the duty of giving it due support.

Depth of Ploughing.

It seems to be the fate of all agricultural questions, that they are never settled. There is hardly one practice, however greatly approved and generally assented to, that will not find opposers whose apparent success seems to justify and maintain their opposition.

We are led to this remark by an interesting editorial notice of the farming of West Chester county, Pa., in a late number of the *Country Gentleman*, which, speaking of the method of ploughing, says: "As to ploughing there is an ancient notion still very prevalent, that about three inches is the proper depth for corn—the average would not be more than four inches—while for other grains they go a little deeper."

We have heard of a juryman who, standing out "to the bitter end" against his eleven associates, pronounced them the most obstinate set of men he ever had to deal with. Again, a story is told of a Maryland Senator, of former days, a very sensible and sagacious old farmer, who, on some important question, recorded his vote "solitary and alone" against the whole body. A prominent lawyer, who understood his character, wanted to know of him, why, when the matter was amply discussed, he had not given the Senate the benefit of his advice. "I am no lawyer to give reasons," said the old farmer, "but I know I am right." The story further goes, that having put the lawyer in possession of his views, he not only changed his vote but, through him the action of the Senate.

There is no section of country which stands in higher repute for the quality of its soil and the excellence of its farming than West Chester county, and we are very curious to know whether it is mere obstinacy which marvels that all the rest of the world should be so obstinate, or whether they really have some valid objections to deep ploughing, which might convince the rest of mankind, if our West Chester friends would condescend to enlighten them—or rather, if they would not be so modest as to keep them to themselves. Will they not get some lawyer to speak for them and put us all right upon this important point?

Before hearing from them, however, we mean to venture a suggestion. West Chester is a grazing county, and the general rotation puts the corn crop on an old sod. The manure of the farm is put upon the oat stubble for wheat, grass follows wheat for two, three or more years, and then corn. The old rotting sod, with a dressing of lime perhaps, is the manure of the corn crop. Shallow ploughing keeps this manure in position to be most available. It keeps it where if well turned and harrowed, it will most readily decompose, and where, unquestionably, the roots of the corn most naturally range, and where *all manures always*, in our opinion should be, *near the surface*. It is a grand compensation for the defective ploughing and possibly an ample one, but if the same thing could be effected in connection with deep ploughing, there can be no doubt of the result. We cannot therefore as at present advised, use the excellent practice of West Chester as an argument against deep ploughing *per se*.

We will make a further suggestion to the farmers of West Chester. The notes in the Country Gentleman state that "the contents of the barn yard go to the oat stubble *before* ploughing for wheat. Will not some of them make a fair

experiment of putting on manure *after* ploughing for wheat. No matter when the ploughing is done or when the manure is put on, provided it be *after* ploughing, and provided it be not left in heaps but spread from the wagon. It requires some courage even to make the experiment, but we ask them to try it.

Shropshire Downs.

We had the pleasure of inspecting recently on the farm of Mr. Samuel Sutton, near the Relay House, a small flock of very beautiful sheep. They consist of twenty ewes and a ram, with as many lambs, of Shorpshire Downs. The ewes and ram were imported last year by Mr. Sutton, from England. He had gone to England with the intention of selecting a lot of the finest South Downs to be had, and after a full opportunity of examining the best flocks, concluded to take the Shropshire Downs in preference. Mr. Sutton is well known hereabouts as a judge of cattle and sheep, and his preference for the Shropshire over the highly valued South Down is strong evidence of their value. The Shropshire is a larger sheep than the South Down but much like it in appearance, and claims all its peculiar excellence as a mutton sheep. We have in a copy of the Mansfield Reporter, of February last, the report of the sale of stock of his Grace the Duke of Portland, at Clipstone Park, of 250 Shropshire wethers and 150 South Down wethers, all two years old. The South Downs averaged £3 0*s*. 2¾*d*., and the Shropshires £3 12*s*. 3¾*d*., per head. It gives us pleasure to note the introduction of this superior flock, the first of the sort brought into the country we believe. Mr. Sutton imported also six ewes and a ram of the Lincolnshire sheep, a very large breed, also some choice Alderney cows.

John Merryman, Esq., *President of the State Agricultural Society*.—Having assumed the position of non-combatant in the conflict of opinion around us, we forego the privilege of comment on the merits of the questions arising out of the recent imprisonment of this gentleman in Fort McHenry. His case has become an historical one of extraordinary interest and importance, and will be rightly passed upon in the judgment of mankind when the excitements and passions of the day shall have subsided.

We will not however refrain from offering him our hearty congratulations on his release, nor from expressing our sense of the gross and shameful outrage of which he has been the victim.

Wheat Culture and Manuring.

On a grain farm, the crop of wheat as the chief source of income, demands such a system and course of culture as will insure its success, having due regard always to the preservation of the fertility of the soil. Under poor cultivation it is one of the most uncertain and profitless, but a very sure and profitable crop under that high culture which includes thorough preparation and ample manuring.

There are two courses of culture for the grain farm, having each its advocates. One after mowing or grazing and tramping down the clover field, makes a fallow of it in August for wheat; the wheat is followed by a growth of weeds; corn succeeds, and this is followed again by wheat or oats with clover seeds. The other system puts corn upon the clover or grass sod; the corn is followed by oats, and a fallow is made of the oats stubble for wheat, giving it at the same time all the farm-yard manure; clover is sown with the wheat, and other grass seeds if hay or pasturage be wanted.

Looking solely to the wheat crop, the former might be considered as the better system for a few years, as it receives the full benefit of the clover lay, and the farm-yard manure as well. But we are met here at once with the objection that the very means taken to ensure a full crop of wheat, ensures likewise a heavy growth of rag weed, which exhausts the ground, harbours destructive insects, and affords food to neither man nor beast. To this follows the crop of corn, wanting the first element of success, a good sod underneath it. Next comes corn-land wheat, a most uncertain crop, or oats, with clover seed—throwing the clover, the great means of improvement to the grain farm, farthest away from the manure.

With the other system, instead of breaking up the sod in mid-summer for wheat, we preserve it till winter or early spring for corn, and ensures not only a heavier crop under favorable circumstances, but an almost certain one under the most adverse state of the weather. With a good sod well turned and properly cultivated, this valuable crop may defy the severest drought. The soil, in the meantime, gets the benefit of six months delay in breaking the sod, not to mention the advantage of fall pasturage this delay affords. As the corn is not to be seeded in grain, in the fall, a very considerable crop of pumpkins, turnips, &c., may occupy the ground at very small cost, which making their chief growth after the corn matures, will not materially interfere with that crop. The fodder is better saved likewise, and both corn and fodder leisurely taken from the field, and the

hurried labour of sowing over a large surface avoided.

After this comes the crop of oats, with a fair chance of profit on the remains of the sod occupied by the corn. This crop makes the system objectionable to many, but it need not be an inseparable one. If they must have wheat, they have a better chance of a crop after corn upon a sod, than if that crop followed wheat. They may sow wheat and fallow the stubble for wheat again, to be highly manured as this system provides. This suggestion is not in accordance with received principles, but we would cheerfully risk any disadvantages it may bring for the manifest advantages resulting from the rotation.*

The next step is the fallow for wheat in summer. The stubble ploughing is much less laborious and less dependent on the uncertain summer rains. It may therefore be prepared earlier and more thoroughly. All the available resources of the farm-yard, and all the commercial fertilizers we may deem necessary, is applied to this crop, with the prospect that whatever it may not appropriate, is left ready for the grass seeds which immediately follow, and which form the basis on which must rest that substantial improvement, without which the crop of wheat must soon diminish.

This arrangement, which devotes all the manure at command in the first place to the most important income crop, and secondly to the crop on which the preservation and improvement of the soil depend, is manifestly a most important one. It affords to a liberal expenditure for manures an immediate compensating return, and secures permanent improvement at a cost which is returned to him in the first harvest.

Moreover, the method of applying manures most suitable to the wheat and the grass seeds, is in point of economy far superior to the ordinary way of manuring. If we were to hazard the opinion, that the use of all our manures in top-dressing wheat and grass seeds in fall and winter, would be equal to an increase of these manures one hundred per cent. it would probably be no exaggeration. The benefit to the wheat is immediate and direct, and the success of the young grass almost absolutely certain, instead of a mere chance, as is too often the case.

The common practice, assuming that the cattle are penned on litter in the yards throughout the year, leaves the winter product in the yards till after harvest. In this case, as it is desirable now to clean them out, let the manure be hauled and spread as soon as you will after ploughing for wheat. But when the better practice shall be adopted, as it will be, of top-dressing through the winter as suggested, the whole crop of winter manure will be upon the ground when the winter closes, and a man will need no larger manure yard than his *cart body*.

* If any portion or all of the field may need extra means of improvement, a crop of field peas sown the middle of May may take the place of the oats with very great advantage to crop and land.

Cat Claw Briars.

"I am no hand at writing, but as I am troubled with (it seems to me) an everlasting torment, I am compelled to write you a few lines to ask you or some of your readers for a remedy. I have a farm of one hundred and seventy-five acres, and there is about seventy acres of cleared land, of which there are nearly two-fifths completely covered with briars; they are what we call here cat claw briars; they grow up two or three feet high and then bend over and run out from six to twelve feet.

"I have dug them up with hoe and cut them off with briar scythe in spring and summer, and instead of diminishing they seem to increase. I believe where they are dug up, the ends of all the roots left sprout and produce more briars.

"Now you will please inform me in what way I can effectually eradicate them, for I have grubbed them up often enough to have cleared a piece of new land twice the size. I am now getting tired of working for nothing, and finding my board and clothing, especially in these hard times. By granting my request, you will confer a favor that will never be forgotten by your friend and humble servant."

Can any one help our friend who writes the above? We know no remedy better than cutting frequently with scythe, and close browsing with sheep.—ED.

Ploughshare and Sword.

The Secretary of the Illinois State Agricultural Society has issued a circular entitled "Grand National Exhibition and Test of Arms," in which sundry grand gold and silver medals are offered for the best of sundry weapons of war, embracing breach and muzzle-loading rifled cannon—twelve and six pounders, rifles, muskets, carbines, revolving pistols, fowling pieces, shot, shell, powder, gun carriages, ambulances, and other military goods. So we learn from the *Rural New Yorker*. The Maryland Agricultural Society would not be indulged in such an exhibition we presume.

Plaster—Bones.

A correspondent expecting to spend a considerable sum in fertilisers this fall, asks for practical information about plaster or gypsum. We would say to him, that plaster has not been found by experience advantageous to the grain crop directly. But very generally so to clover, field peas, and crops of that character. It should be tested on all soils and used on account of its cheapness, unless as in some sections, it is found to be quite useless. A barrel costing usually in the Baltimore market one dollar and twenty-five cents will dress four acres.

Bones are becoming a favorite fertiliser, and as it is important to get the ground article into such condition as to make it effective to the first crop, we give the following method found in one of our exchanges which will supercede the use of sulphuric acid. To a ton of ground bones add two to four hundred weight of salt, and enough of hot water, urine, or other liquid manure to dampen thoroughly the whole mass. Mix it thoroughly and cover the heap with common soil. It will soon ferment and after several weeks be fit for use.

Chester County Whites.

A friend of ours purchased last year, from a dealer in these hogs, a sow then in pig. When the litter was produced one was "spotted," and the dealer assured the purchaser this was very often the case. We had our doubts on the subject, but meeting another dealer direct from Chester county, at the last exhibition of the Maryland State Society, we found among a very beautiful lot of "white" Chester pigs, several spotted, with nearly as much black as white. He told us on inquiry, that it was by no means an unusual thing among the best bred Chesters. Finding the following communication from a "Chester county farmer," in "the Country Gentleman," in which all spotted pigs are pronounced "grades," it is very well to call attention to the subject, that purchasers may be on their guard as to where they buy from.

The points of a good Chester as found in this communication, will also command attention; they differ in some material respects from many specimens that have come under our notice, and we cannot resist the belief that too often, inferior grades have been imposed upon buyers when they thought they were getting thorough-breds.

"I learn from Mr. Francis Strode, an extensive dairy farmer of this county, who has been many years engaged in raising and sending abroad this particular breed of hogs, that his father, the late Richard Strode, commenced a half century since to pay close attention to improving his stock of hogs, (since persevered in so successfully by his son,) and that by judicious crossings through a series of years, and a careful selection of choice animals to breed from, our Chester hogs have attained their present valuable properties, and established certain unmistakable and characteristic "points" of excellence and recognition. Others of our farmers than the Messrs. Strode have been laboring diligently to the same end these many years past. I merely mention their names as a matter of reference and authority, and as among the earliest growers of this stock. There is little doubt, I think, that our Chester whites have descended from improved foreign stock—the Berkshire,* most probably, from their resemblance in some of their points—and yet we have improved so decidedly upon the Berkshires in many important respects that some of our breeders deny the paternity in toto from that source.

As a matter of course, in the great "Swinish multitude" within our county limits, there are numerous "grades" of these animals *claiming* to be the "Chester Whites," which though frequently very creditable specimens, are decidedly inferior to the stock of the Messrs. Strode and others of our most careful breeders. It is important, therefore, that persons at a distance ordering this breed of hogs, should apply to parties of known reliability in the matter.

Among the important characteristics of this breed of hogs, is its remarkable aptitude to fatten at any age, and without being fed on grain. On good pasture, with the ordinary "slops" from the kitchen and dairy, the Chester will at all times keep sleek and fat,—in fact, our farmers frequently have trouble in keeping their breeding sows in sufficiently low condition when running to pasture, with nothing but pure water to drink. With this aptitude to fatten, we claim for the Chester, *that they will produce more pork upon the same amount of food than any other breed*, consequently, they are more valuable and profitable to the farmer, than any other breed. A genuine Chester, when well cared for, will gain on an average one pound weight per day till two years old, and has been known to reach one thousand lbs. at that age and over. We do not consider it desirable, however, nor is it profitable to attempt to reach this great weight. From 300 to 400 lbs. weight makes the best pork, and a well

*Our friend Paschall Morris of Philadelphia, traces the Chester County Whites back to the importation of a pair of Bedfordshire pigs—See Co. Gent., vol. xvii, page 263. Eds. Co. Gent.

fed Chester *is sure* to make this weight at from nine to twelve months old. At eight weeks old—which is the proper age for shipping, and they should never be sent abroad earlier—our shoats measure about thirty inches in length and weigh about fifty lbs.

The following are recognized by our best breeders here as some of the established "points" of this stock :—

FORM—Head short and broad, face somewhat dished—wide between the eyes and jowls. *Ears* fine and thin, standing well out from the head, and pointing forward, (never drooping.) *Neck* short and thick, well set on the shoulders which are prominent and full. *Sides* carrying their full width back to the hams and rounded. *Hams* rounded, swelling out behind and at the sides, and presenting a full and round appearance on all sides. *Back* straight and broad. (A pig that has low shoulders or sinks in the back, should at once be rejected as a breeder,—it is only fit for the butcher.)

COLOR—*Clear white* and when well washed presents frequently a silky appearance. (The least *spot*, or approach to a *sandy* color, indicates a "grade" animal.

HAIR—Soft, thin on the back and belly, more thickly set on the sides, and frequently a little curled.

Bones small and fine. *Tail* fine, tapering and curled. A CHESTER COUNTY FARMER.

Chester Co., Penn."

Mowing Lawns.

It is of the first importance that the first mowing should be done as early as possible in the season. If left to grow long before the first cutting, the leaves get yellow at the base, and at every cutting after the yellowness appears, totally destroying the fine green color which gives the lawn its chief attraction. Where a first-rate mowing is desired, it is best to roll the grass the day before cutting. The grass is then pressed all one way, and cut evenly, and any dirt or stones pressed beneath the surface that would otherwise take the edge off the scythe. A good lawn-mower keeps his scythe very sharp. Some grind a little before each regular set-to at mowing. Those who are not accustomed to mowing lawns, should take but a few inches in width at a time, so as not to "score." With a little thought and judgment, any field mower can soon become a good lawn hand. A sharp scythe is the chief element of success.—*Gardener's Chronicle.*

HOUSEKEEPERS' COLUMN.

CORN PUDDING.—One dozen ears of corn cut or grated, half dozen eggs, one pint of milk, quarter pound of butter, with pepper and salt to suit; bake half an hour.

A NICE DISH.—*To the Horticultural Editor Field and Fireside* :—My sphere of duty being rather by the 'fireside,' than in the 'field,' I cannot come with agricultural arguments and offerings : but having an experience in floriculture, horticulture, and domestic cookery, somewhat wide and varied, and decidedly cosmopolitan in its character, I may, I think, venture to come to you with occasional 'bits' of information appropriate to your department. I may hereafter come often enough, should I become emboldened by success.

Happening to imagine that there may be a great many ladies and gentlemen among your readers, possibly yourself among the number, who may chance to love another really excellent dish, than my husband's, or their own, 'green peas and roast lamb,' I attempt the description of one, which as prepared by myself is as delicious a one as ever graced any dinner table. It is a favourite dish among the better class in Mexico, New Granada, Brazil and Peru, though rarely, I think eaten in North America. The Spaniards call it *Omela*; its chief component parts are green corn and ripe tomatoes. I give you my process, and the materials used in preparing the dish, and rather than you should from an unskilful imitation pronounce it a failure, I shall be tempted to pay your *cuisine* a visit, and compound the dish myself, when I should be certain of your suffrage in its favour.

To twelve ears of green corn cut raw from the cob, and well mashed, by rolling on the moulding board with the rolling pin, add a dozen fine, ripe tomatoes, first scalding and removing the thin, outside skin. Place in a pan, and pour in a pint of fresh, sweet milk. Then beat well three eggs, and add to the mass, stirring the whole briskly with a strong iron spoon, until it is of the consistency of a batter. Season to the taste with salt, pepper, and allspice, and then, having saved the husks stripped from the corn, lap up and tie two spoonfuls of the batter in double thickness of husks, and boil one hour, with bacon ham, or whatever meat may be cooking for dinner. Serve hot and in the husk, as it is cooked. Good, sweet butter is the best sauce. Should there be any remaining, fry them slightly brown in little cakes for breakfast, and I should suspect the patriotism of that person who wouldn't pronounce them delicious. MRS. E. D. KENDALL.

Reisterstown, Md.

Gossip about Fruit Trees and Fruit.

BY AN OLD COUNTRYMAN.

There is no doubt that the age of some fruit trees has much influence on the flavor of fruit. This fact is quite in accordance with what might be assumed would be the case, judging from the laws of vegetable physiology; inasmuch as many of the secretions of plants are known to vary considerably, both in flavor and consistence, with the age of the plant.

In floriculture, even the shape and colors of flowers are often found to alter to a certain extent, after the plants have attained some age, from those which they possessed as seedlings. Care, therefore, should be taken not to reject too hastily newly introduced varieties of fruits, whether imported kinds, or such as may be originated by those who are engaged in the interesting and praiseworthy occupation of endeavoring to add to the pomological riches of their country.

Many years since, the writer had in his garden in England, a very old Green Gage plum tree, some fifteen or twenty feet in height, and probably eight or ten inches in diameter near the ground. It had but a moderate sized, straggling top of branches, but it bore fruit of remarkably fine quality. The plums were, however, very small, and but for their high flavor would have been little valued.

This tree chanced to throw out a vigorous young shoot from the old stem, (which was perfectly sound and in good health,) and the idea presented itself, that it might be possible to add to the size of the fruit, by removing the top of the tree, and renewing it from this young branch. The stem of the tree was therefore cut through just above it in a slanting direction, and the whole strength of the roots being thrown into the young branch, (then in the second year of its growth,) it made rapid progress; and in two years from that time it commenced bearing, and well repaid the experiment; the size of the fruit was more than doubled, and the flavor retained all the excellence for which the tree had long been remarkable.

Some varieties of pears (upon their own roots) undoubtedly present the same phenomena. A tree of an old and highly esteemed pear in England, that was comparatively young, always bore fruit of very large size and shape, but of a mealy flavor; while an old tree of the same kind, similarly circumstanced as regards soil and situation, produced invariably fruit of high quality; evidently consequent only on the difference of age in the two trees; but the size of fruit was much in favor of the younger tree.

The renovation of old fruit trees deserves, also, more attention than it often receives. So long as a sufficient portion of the trunk remains sound, there are few old trees that can not be rendered valuable. If the variety be not really good, of course it is worse than useless to retain it, and the tree must, therefore, either be cut down, or if sound, grafted.

The causes of deterioration of old trees that are sound, but cease to bear, or that yield imperfect fruit, will generally be found to arise either from poverty of the soil, (its good qualities having been appropriated by the tree in bygone years,) or in the fact that the roots have penetrated too deeply into the subsoil. These evils may be remedied by digging a trench around the tree at a distance from the trunk, at least equal to the spread of the branches; from this trench, and *between* the larger roots found near the surface, an approach may be made nearer towards the trunk of the tree, so as to cut through many of the roots that may be seen to grow downwards into the subsoil; and after that the earth removed may be replaced, with a rich compost of fresh loam and a little manure mixed with it.

An instance of the accidental restoration of a large pear tree that had for many years been neglected, and which was supposed by the owner to be valueless, will illustrate the simple means by which such an operation may sometimes be effected. The tree was very old, and happened to stand within about ten yards of the back entrance to a large garden, which had formerly been kept in high order, but for many years subsequently had been but poorly cultivated.

In the fall of the year a large quantity of old manure had been purchased, for the purpose of improving the ground for vegetables. This manure was heaped up against and around the old pear tree some three or four feet high, simply because the place was convenient to the back entrance gate, and was, moreover, pretty much out of sight from the rest of the garden. The manure remained there through the winter, and in the spring was used up as required in the garden. In the following autumn, the tree (an old Bergamot pear) bore a very heavy crop of fruit, remarkable both for size and flavor. And thenceforth it continued (and possibly may yet continue) to yield a good annual crop. Of course no one at all conversant with the subject, would recommend piling up manure against the stem of a tree. In this instance it was done unwittingly by the men, and was again removed before it did harm; and undoubtedly, without any intention of the tree being affected by it for good or ill.—*Horticulturist.*

Agriculture in Europe.

A correspondent of the Philadelphia Ledger writes from Paris: "In making an Agricultural tour in France, Austria, Prussia and Belgium, the first impression on the mind of an American farmer, is, that the entire of this vast country is divided into long and narrow garden strips, of not exceeding five acres or thereabouts. We say garden strips, because, literally, the land is tilled exactly as the vegetable gardens in the neck of Philadelphia. More power is put to the plough, and it runs greatly deeper than with us. Then, besides the harrow, clod crushing is a marked operation. Not only by machinery, but by hand. You will see a dozen women, mostly with wooden mallets, go minutely over the ground, and finely pulverise every lump on its surface ere the seed is sown for any crops. The result of this preparation is seen distinctly in the standing grain, which seems to leave no room for an additional blade of straw. Weeds are not seen. Cows are harnessed to work in the field; and no cattle are allowed to roam at large over pastures, wasting under tread three times what they eat. There are no fences in all this vast country, except sometimes along the road and occasionally in exceptional cases; and no headlands are wasted. This is a great national saving, equal to a fair valuation of the entire land itself. It may be a thing worthy of consideration for the farmers of many of our States, whether this economic system is not practicable with them, at least, to some profitable extent.

"Women take their place with men at every work. They mow, pitch hay, spread manure, and load it from the barn yards. They trundle wheel barrows, work at making roads and canals, and do the chief part of cleaning the streets of cities. You will see them mixed with men, digging cellars and excavating for water pipes, breaking stone, shoveling mud into carts, etc.

"Children of both sexes are put early to work together, at labour too severe for their youth, as we should judge.

"This want of distinction between the sexes produces a manifest disregard of all delicacy. The women do not retire when we should consider it shameful to expose themselves. The consequence is that they are rough and tough, able-bodied labourers, with only anatomical differences to distinguish them from the men.

"Agricultural machinery has not yet come into use in this vast territory of one hundred million people. Moreover, their every day tools are primitive as we may suppose they were in the times of Tubal Cain. Such picks, shovels, hoes, rakes, scythes, axes, and the like, would make a laughable exhibition in any American museum, if labelled as antiquities. Every tool is patched and tinkered, from father to son, to save the cost of a new one. Even a hoe-handle will be used when worn down to eighteen inches or less, and the poor women, to whom that implement is almost exclusively resigned, may be seen in rows, nearly doubled up at their work, from morning to night.

"The peasantry of these European countries work earlier and later than ours, and they live on soups, black bread, and other cheap food. Their clothing is of material that lasts a life-time, nearly. Their shoes, for instance, are made of wood, some having coarse leather uppers. There is in these wooden shoes a healthful prescription, which may be earnestly recommended to all agriculturists."

Underground Stables and Manure Cellars.

The subject of underground stables has occupied the attention of farmers for many years; and there seems to be a difference of opinion upon the subject, which we think can be reconciled very easily, if farmers will only manifest a willingness to listen to the voice of reason and common sense. An underground stable should be built in such a manner, that there may be a free circulation of air *through* it, one way at least, in order to carry off the noxious and unpleasant effluvia always arising from a stable, to a greater or less extent. Merely *permitting* the air to fill the stable from one side, without an outlet upon the opposite side, is not a perfect and healthful ventilation. It leaves too much dead air to be breathed over by the stock. We believe that the same care is necessary to render an underground stable comfortable and healthy for stock, that would be required to render the cellar of a house comfortable and healthy as the residence of a family. And we must confess that we never saw one fit for that purpose. It is unnatural and unhealthy. All animal life must have a full supply of pure air. Sleeping in cellars and basements is a dangerous practice. They are too damp and dead. If it is true of persons, why may not the same cause affect the lower order of animals? If so, must we not come to the conclusion that a stable built *above* ground is far preferable to one built *under* ground? If it is objected that the latter is warmer than the former, we must take issue upon that point. If it is contended that *dead air*, arising from damp ground, is warmth and comfort for animals, we simply say, that common sense teaches us better. We do not care how warm a stable is made, provided it is free from

the ground, and can be ventilated at pleasure. Stables, to render stock comfortable and healthy *must* possess three important requisites. They must be warm, dry and airy. Without these a stable is not perfect. If this is true, why are not stables built above ground far preferable to any other? We think they are, and if we had a thousand cattle, we would never confine one of them in an underground stable. If we had a barn upon a hill side, and could not ventilate the basement thoroughly, we would convert it into a bay for hay, and keep our stock high and dry.—We must confess that our every day experience strengthens our objections to underground stables.—*Northwest. Far.*

Ashes for Cabbages.

No manure that can be applied to the cabbage is more salutory in its effects than wood ashes. The worm which so frequently and fatally infests the roots of this vegetable, is often expelled by liberal and repeated applications of this article. If common salt be mixed with it—say four quarts of salt to one bushel of ashes—and a small quantity of urine or wash from the barn-yard, be sprinkled frequently over and around the plants, the growth of the crop will be greatly promoted by it.

The cabbage is a most excellent product, but many find it difficult to cultivate, as often losing a crop as gaining one. On new, strong lands, or lands which have been depastured many years, it generally succeeds, and makes a much better crop than on old lands, even with the aid of the best manure.

Cabbages require frequent hoeing. The operation should be performed either in the morning or evening, and if the plants are infested with vermin, sprinkle the leaves with ashes while the dew is on them; if there is no dew, sprinkle them with diluted urine or weak soapsuds. This will cause the ashes to adhere to the leaves, and furnish some protection, at least, against all attacks. The heads may remain out till snow fall, and the small, imperfectly developed ones either fed to cattle, or, if more valuable for the market, set out in moist earth, so far apart as not to touch each other. What are wanted for family use may be perfectly kept by cutting off the stump and most of the large, outside leaves, and packing them in barrels, or boxes, a cart body, or any thing of the kind, with straw cut with a hay cutter or a hatchet. Place a layer of straw on the bottom, and sprinkle it with clean water, then the cabbages close together, and so on, alternately, until the vessel is full. We have kept them in this manner, in perfect condition, until the middle of May.

The field cultivation of this vegetable excites attention near large cities, and favorable reports have been given in regard to the profit of the crop. The cabbage makes an excellent food for domestic animals, and the quantity which may be grown per acre is really astonishing. Some care must be observed, however, in feeding them to milch cows; as a full feed of them is apt to flavor the milk.—*New Eng. Farmer.*

Packing Fruit.

In no art are we more deficient than that of packing fruit so that it may be carried a long distance without injury. Three-fourths of all our summer fruits sent to market any considerable distance is more or less injured. Indeed, much that is brought to cities by growers only a few miles distance is scarcely fit for sale. Occasionally fruits are sent us with a request to exhibit them at our Horticultural Shows, but in most cases the specimens are so injured when received as to be entirely unfit to show. Mr. Kidd, gardner to the Marquis of Broadalbane, who sends fruit and flowers from the garden near Hampton Court, England, to the Highland residence of the Marquis, subject to five hundred miles carriage, is so successful in packing that he can send fully ripe tomatoes "without losing a fruit," and boquets that when received will be as fresh as when first picked. He gives his method of packing fruit as follows:—"I have found no better method in all my experience, which has extended over a period of twenty years, with all kinds of fruit, varying in distance from fifty to five hundred miles. It simply is—box, soft paper, and sweet bran. A box is chosen, in size, according to the quantity to be sent. A layer of bran is put at the bottom; then each bunch of grapes is held by the hand over the centre of a sheet of paper; the four corners of the paper are brought up to the stalk and nicely secured; then laid on its side in the box, and so on, until the first layer is finished. Then fill the whole over with bran, and give the box a gentle shake as you proceed. Begin the second layer as the first, and so on, until the box is completed. Thus, with neat hands, the bloom is preserved, and may be sent to any distance; but, with clumsy hands, quite the contrary, and often an entire failure, as the putting in and the taking out of the box are the most important points to be observed. I have, invariably packed sixty or eighty bunches of Grapes, and fifty or sixty dozen of Peaches or Apricots in one box, and received letters from

employers, to say that they have arrived as safe as if they had been taken from the trees that morning."—*Rural New Yorker.*

Choice Honey Crops.

The movable comb hive is peculiarly adapted for the purpose of collecting and securing, in its pure state and unmixed with other kinds, the honey yielded by any particular species of tree or plant. For instance, where lindens, locusts, peach or other trees abound; or where white clover, mustard, lavender, sage, or similar plants are largely cultivated; it is only necessary, when any of these are in blossom, to insert frames with empty combs in the hive and remove them when filled. If the honey is intended for immediate use, it is not necessary to delay the removal till the cells are sealed over, and the contents can then be more readily drained out and the combs the more speedily re-inserted: But to secure this object completely and to secure the largest amount of the particular kind of honey desired, there should be no unsealed brood in the hive during this period, as it would demand a large expenditure of time and attention on the part of the workers, and involve no inconsiderable consumption of honey. The queen should therefore be confined or removed five or six days prior to the intended operation; and released or restored after it is ended. The brooding chamber or proper dwelling place of the bees, should also be amply stored with common honey, so as to offer the workers no vacant spaces or empty cells; because they would instinctively fill their immediate quarters with stores, before carrying honey to the more remote parts of the hive. Hence, when any particular kind of pasturage abounds, and the brooding apartment is yet partially empty, it will be serviceable to take out the frames with empty combs, and insert combs of sealed honey instead—thus constraining the bees to carry their daily gatherings to the combs designed to receive them. When the apiarian has once thoroughly established the movable comb system in his apiary, he will almost always have on hand supplies of frames with sealed honey, and be prepared to effect the requisite arrangements. But if he is yet a new beginner, he should remember that full combs may be taken for this purpose from such common hives as are not intended to be wintered; or if he should subsequently conclude to preserve them, the honey may be restored after it has served this temporary purpose.—*American Bee Journal.*

☞ MR. WM. C. LIPSCOMB, JR., is our Traveling Agent for Maryland and Virginia.

Dwarf Apple Trees.

Dwarf apple culture, which has yet received but little attention, is a subject deserving the especial notice of fruit growers. The apple, as a standard, has been almost excluded from suburban gardens on account of the room required for the trees, and their long time coming into bearing. But dwarf apple trees, as objects of ornament as well as luxury, are scarcely less valuable than the pear. They need but little space, come into bearing immediately, and a small plantation of them will supply an abundance of fruit of the finest quality. Their importance has been altogether overlooked.

The truth with standards is, that when they begin to bear they produce more fruit than is needed, and they do not afford a variety or succession, unless sorts are grafted on a tree.—Dwarfs obviate this: a single tree or two produces as many of one sort as are wanted, and the little room they occupy allows the planting of two or three dozen varieties, which ripen their fruit every week from July to winter. They supply the possessor with apples of varied beauty, dissimilar flavor, and the highest excellence.

THE CROPS.—The crops of grain, hay, &c., have been bountiful, almost without precedent throughout the country. The season has been an unusually cool one, and in that respect unfavorable to the growing corn crop, which needs hot suns and sultry nights.

☞ There are none so devoid of true gentility as those who are always striving to prove their claims to it.

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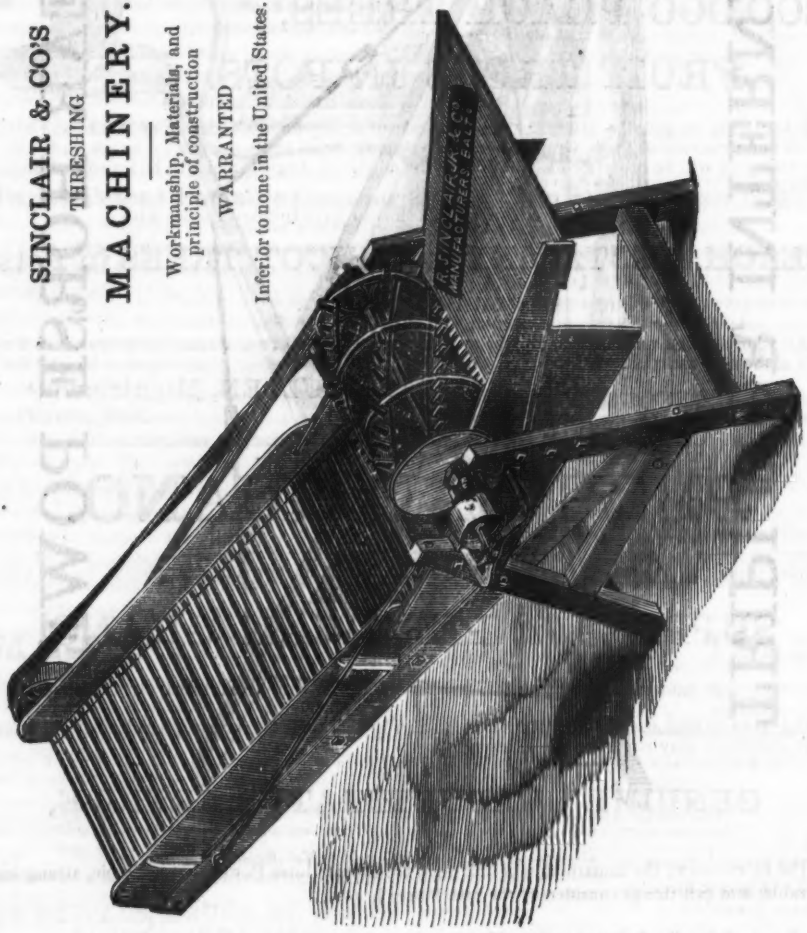

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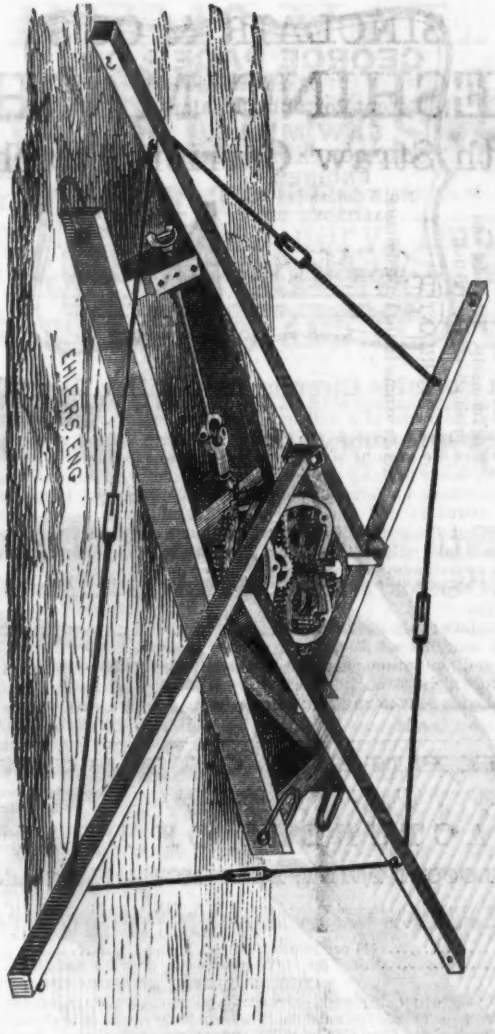

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Our Portable Engines range from 6 to 27 horse power, and are, as their name imports, strictly portable, capable of being moved from place to place by from 2 to 6 horses. The small sizes are well suited for farm and plantation purposes, to thresh wheat, gin cotton, &c. The larger ones for all the general uses to which steam is applied.

Descriptive catalogues sent to any gentleman who may apply. Address,

mh1-tf GEORGE PAGE & CO., BALTIMORE, MD.

HENRY GIBSON,

(Late BURNS, RUSSELL & GIBSON,)

MANUFACTURERS OF DRAIN TILE,

LOCUST POINT, BALTIMORE, Maryland.

All Letters and Orders must be addressed to the CARE of E. G. LIND, Architect, CORNER OF CHARLES AND FAYETTE STREETS, when they will secure prompt attention.

2 inch Round Tile.....	$11 per 1000 feet.	4 inch Round Tile.....	$30 per 1000 feet.
3 " "	17 " "	4 " " 1-6 long.....	34 " "

COLLARS EXTRA.

4 inch Round Tile, 2 feet long, with Collar, 9 cts. per foot—5½ inch Round Tile, 2 feet long, with Collar, 13c per foot.

Particulars respecting large Socket Pipes and Sole Tiles will be forwarded on application as above.

All these Pipes are made of the finest clay by skilful and experienced workmen; they are clean in the bore, and so thoroughly burnt as to be impervious to frost, and will bear comparison in quality and strength to the best goods manufactured in the world; a premium for which was awarded me at the Norfolk Show. dec-1y

---

CHEMICALS, DRUGS, &c. used for Agricultural Purposes.

NITRATE OF SODA,
SULPHATE OF SODA & SALT-CAKE,
SULPHATE OF AMMONIA,
SAL-AMMONIAC,
POT-ASH, SODA-ASH,
CARBONATE OF AMMONIA,
OIL VITRIOL, &c., &c.

For sale, wholesale and retail, by

R. J. BAKER,

ap-1y 36 *South Charles-st., Baltimore.*

JAMES BAYNES. JOHN B. BAYNES.

JAMES BAYNES & SON,

WOOL DEALERS,

HOLLINGSWORTH STREET,

Near Lombard, between Calvert and Light sts.,

BALTIMORE.

REFERENCES:—B. Deford & Sons, Baltimore; Wethered Brothers, Baltimore; Benj. Bullock & Sons, Philadelphia; H. Robinson & Co., Philadelphia; J. W. Stitt & Co., Philadelphia; Wm. K. Strong, New York; C. J. & F W. Coggill, New York; G. W. Bond & Son, Boston; T. B Townsend & Son, Boston; Springer Harbaugh, Pittsburg Pa.; A. D. Bullock & Co., Cincinnati, Ohio. may

REMOVAL.

The undersigned, thankful to his friends and the public for the very liberal patronage bestowed on him during the two past years, respectfully informs them that he has removed to the large and well lighted warehouses,

Nos. 46 and 48 LIGHT STREET, Corner of Balderston,

Where he can offer a larger and better assorted stock of

☞Agricultural Machinery, Implements,

HORTICULTURAL TOOLS,

FIELD, GRASS, GARDEN AND FLOWER SEEDS,

Home grown and imported—to which he invites their attention and solicits a continuation of their custom, promising that no pains shall be spared on his part to render entire satisfaction.

RICHARD CROMWELL,

Nos. 46 and 48 LIGHT STREET, *Corner of Balderston.*

SOLE AGENT IN BALTIMORE for

Dorsey's Self-Raking Reaper and Mower,

IMPROVED FOR 1860.

CASH PRICE at Factory	$135
CREDIT—$50 Cash and 4 months' note, city endorsed, for $100	150
Freight added from Factory to Baltimore, say	5

Those wishing a *reliable* machine, one that will secure their crop of grain and grass with as little expense and small a force as with any other, by ordering early can be supplied with an article that may be depended upon with all confidence. Descriptive pamphlet Circulars, giving a working cut of the machine and all the particulars, furnished on application.

☞Also Agent for SHARE'S PATENT COULTER HARROW—Price $15. One of the best inventions of late years for the Farmer, and one which no one would do without after once knowing its value. Those who have used them all agree that as a pulverizer of the soil, whether on stubble or inverted sod, or for preparing the ground most thoroughly for the reception of seeds of any kind, and as a coverer of Grain and Grass Seeds, when sown broadcast, that the SHARE'S PATENT COULTER HARROW is superior to anything they have used or seen. Send for a Circular descriptive of it. Also in store,

THE WEATHERSFIELD SEED DRILL—Price $6.50.

A neat, light, hand implement, which deposits, covers and rolls all kind of Garden Seeds at one operation, in the most perfect manner.

BICKFORD & HUFFMAN'S DRILL, with the Improved Guano attachment and Grass Seed Sower.

HUNT'S DRILL, with Guano and Seed Attachment.

HORSE POWERS AND THRESHERS of different patterns.

CORN STALK, HAY and STRAW CUTTERS.

MONTGOMERY and VAN WICKLE'S EXCELSIOR FANS.

PLOUGHS, HARROWS and CULTIVATORS of all kinds.

HARVEST TOOLS—a complete assortment. GRAIN CRADLES, with the genuine English Waldron Scythes attached. HORSE and HAND GLEANERS and RAKES. In fact, every article pertaining to the trade, at the lowest prices.

☞GARDEN SEEDS of my own raising and importation this spring from England and France—as also a fine collection of CHOICE FLOWER SEEDS, from Vilmorin, Andrieux & Co., Paris—and the different GRASSES, for both Pasture and Lawn; among them the celebrated HUNGARIAN GRASS SEED, which may be sown (3 pecks per acre) at any time in the months of May and June—price $2.50 per bushel.

RICHARD CROMWELL,

LIGHT AND BALDERSTON STREETS, BALTIMORE.

june

Splendid Stock
OF
DRY GOODS

HAMILTON EASTER & CO.

Invite the attention of persons visiting Baltimore to the large and splendid STOCK OF GOODS in their

NEW MARBLE BUILDING,

Nos. 199, 201 and 203 Baltimore St.

Importing the greater portion of our stock—one of the firm visiting the various European markets twice a year for that purpose—we are prepared to offer to WHOLESALE AND RETAIL PURCHASERS goods of the best class at very low prices, including

Black and Colored Silks
AND
ROBES,
Fine Dress Goods
OF EVERY FABRIC,

Low and Medium Priced Dress Goods,
SHAWLS,
SCARFS,
MANTILLAS
AND CLOAKS,
GLOVES,
HOSIERY,
CRAVATS,
HANDKERCHIEFS, &c.

CHOICE GOODS FOR MEN'S WEAR.

Mourning Goods,
OF EVERY DESCRIPTION.

IRISH LINENS, LINEN GOODS, and articles of every description in the way of

Housekeeping Dry Goods.

☞ ALWAYS ON HAND, such Goods as are required by

Planters and Farmers,
FOR SERVANTS' USE:

Such as Bleached and Brown COTTONS, OSNABURGS, JEANS, LINSEYS, PLAIDS, Fulled Cloths, SATINETS, BLANKETS, &c.

☞ NO DEVIATION FROM FIRST PRICE NAMED FOR ANY ARTICLE.

WHOLESALE ROOMS on second and third floors. apl-1y

STRAWBERRIES.

Messrs. PRINCE & CO., Flushing, New York, will send their New Strawberry Catalogue, comprising 150 varieties, and New Catalogue of Bulbous Flowers and Grapes, to applicants enclosing stamps. Prince's Scarlet Magnate, Triumphe de Gand, Hooker, Jenny Lind, and 20 other varieties, $1 per 100, $5 per 1000. Wilson's Albany, 75 cents per 100, $4 per 1000, $10 per 3000. Austin's Seedling, $1 per dozen. For other Splendid Varieties see Catalogue.

WHEELER & WILSON'S
SEWING MACHINES,

With new improvements, at reduced prices. The Wheeler & Wilson Manufacturing Company, having gained ALL their suits at law with infringing manufacturers of Sewing Machines, propose that the public shall be benefitted thereby, and have accordingly reduced the prices of their Sewing Machines. After this date they will be sold at rates that will pay a fair profit on the cost of manufacture, capital invested, and expense of making sales—such prices as will enable them to make first-class Machines, and, as heretofore, guarantee them in every particular.

NEEDLES, SILK, &c., at reduced prices.

FAIRS OF 1860.

WHEELER & WILSON,

☞ AS USUAL, VICTORIOUS! ☜

AWARDS BY VIRGINIA MECHANICS' INSTITUTE ON

SEWING MACHINES.

To WHEELER & WILSON, 1st Class Premium—Silver Medal.
To the LESTER CO., of Richmond, 2d Class Premium—Diploma
To GROVER & BAKER, 3d Class Premium—Diploma.

ON SEWING MACHINE WORK

1st Premium to WHEELER & WILSON,
2d Premium to the LESTER CO.

W. MERRELL, AGENT,
jan-1 205 Baltimore street, Baltimore, Md.

Fruit and Ornamental Trees.

J. L. DARLINGTON & CO.,

Morris Nurseries, West Chester, Pennsylvania,

Call the attention of their friends and customers in the South to their large and fine assortment of *Fruit Trees*, both Standard and Dwarf, also to their very full collection of all the small Fruits. We have all the best Fruits adapted to successful cultivation, comprising the best varieties of Apples, Pears, Peaches, Cherries, Plums, Apricots, Nectarines, Quinces, etc., etc.

☞ Ornamental Trees, both Evergreen and Deciduous of all kinds and sizes can be furnished at reduced prices. We call especial attention to our extensive stock of large and well shaped Evergreens. For particulars we refer to our Catalogues, which will be furnished gratis to all applicants. Freight paid to Philadelphia on all orders amounting to $5 or over. mar-1y

A Desirable and well improved Farm For Sale Cheap.

I offer for sale my Farm in Buckingham County, Va. The tract contains 318 Acres. My price for the Land and everything on it except the negroes, is $3,000—Farming Utensils. Carpenters' Tools, Stock of all kinds, Household and Kitchen Furniture, &c. Possession given the coming fall.

My Post Office is Glenmore, Buckingham County, Va.
june-3t NANCY P. WILKINSON.

PREMIUM

Iron Cylinder Grain Drill,

—WITH THE—

IMPROVED GUANO ATTACHMENT

—AND—

GRASS SEED SOWER.

PATENTED AUGUST 17, 1858. MANUFACTURED BY

Bickford & Huffman, Baltimore, Md.

This Drill is universally acknowledged, where it is known, to be the most perfect machine ever invented for sowing all kinds of grain, and every description of Fertilizers in a concentrated form. It is so constructed, with the different sized gear wheels, as to sow any desired quantity of grain, from one to four bushels to the acre. In its arrangement for distributing guano, lime, plaster, ashes, &c. either in a damp or dry state, it differs from and excels all other drills ever before offered to the public, a separate box for these Fertilizers being attached in front of the Grain Box, from which the manure is evenly and perfectly delivered in the tubes, and is deposited with the grain in the drill furrow. This attachment is so constructed to be used either with or without the Grain Drill. In addition to this improvement, we have also attached a Grass Seeder, for sowing grass or Clover Seed broadcast, which may be used either in front or back of the drill tubes.

The proprietors have been engaged in the manufacture of Grain Drills for over ten years, and have been continually making improvements. They now with confidence offer their improved Drill to a discerning public, and warrant it to give entire satisfaction. Reference will be given, on application to the proprietors, to responsible persons, in almost any state in the Union. Hundreds of certificates are in possession of the proprietors, testifying to the superiority of this machine over all others.

Those wishing this article, and one that is universally acknowledged by the farmers of the South, North and West, and by all that have examined it, to be the best ever offered to the public, will bear in mind that unless they order early, may be disappointed, as hundreds were last season, by delay.

PRICES:

9 TUBE DRILL	$90 00	GUANO ATTACHMENT	$25 00
8 " "	85 00	GRASS SEED SOWER	10 00
7 " "	80 00		

All orders promptly filled and nformation given by application to

C. F. CORSER,

General Agent for the Southern States.

Office, No. 90 S. Charles street, between Pratt and Camden, Baltimore, Md.

july-1y

To the Farmers and Planters of the South.

FOWLE & CO'S
Soluble Phosphated
PERUVIAN GUANO!

The Best, Cheapest, and Most Permanent Fertilizer ever offered to the Agriculturist.

Approved by Professor CAMPBELL MORFIT, one of the most eminent Chemists of America, as the most reliable and efficient combination of

PHOSPHATIC AND AMMONIATED GUANOS

Yet offered in a REALLY SOLUBLE FORM. It is composed of

No. 1 Peruvian and Sombrero Guanos

Of DIRECT IMPORTATION from the CHINCHA and SOMBRERO ISLANDS, and is warranted FREE FROM ALL IMPURITIES.

This FERTILIZER has been severely tested, in comparison with Peruvian Guano, by many of the most successful and intelligent farmers of Virginia and Maryland, from whom we have received numerous letters and certificates of approval. We submit the following extract from Prof. MORFIT'S Report upon the SOLUBLE PHOSPHATED PERUVIAN GUANO, viz:

"The above analytical results express a high value for this Fertilizer, and indicate that the formula for its preparation is founded upon sound principles of agricultural economy and efficiency. Though replete with the indispensable elements of a fruitful soil, the relative proportions are so skillfully adjusted as to promote their mutual action, and render it a most profitable manure, adapted for crops generally, without distinction as to kind." CAMPBELL MORFIT.

Prof. Morfit also in his recent article on Sombrero Guano, in the December (1860) number of the American Farmer, gives the Analysis of our Fertilizer, (*Analysis* A, *Table No.* 4 *of said article,*) and asserts that—

"No other phosphatic material than the Sombrero could be made to yield a fertilizer like 'A' of Table No. 4, so affluent and yet so well adjusted in all the elements for profitable fertilization."

Copies of the above-named documents, together with Prof. MORFIT'S ANALYSIS, and other interesting matter, will be found in our pamphlets and circulars, showing that our FERTILIZER is far better adapted to general use than Peruvian Guano alone, besides being

SIXTEEN PER CENT. CHEAPER.

The SOMBRERO GUANO, before its combination with the PERUVIAN, is rendered IMMEDIATELY SOLUBLE by a process recently discovered and peculiarly our own. The value of PERUVIAN GUANO, presented in this modified and improved form, can hardly be over-estimated.

Price, $50 per ton of 2000 pounds.

Pamphlets and Circulars, containing more particular information, will be supplied by mail, and orders will be promptly executed upon application to our Agent, EDWARD FRANKS, No. 35 WILLIAM STREET, NEW YORK.

FOWLE & CO., Alexandria, Va.

Messrs. HENRY M. WARFIELD & CO.,

mar-tf **No. 16 SPEAR'S WHARF, Baltimore.**

PIANOS!

NEWMAN, BRO. & SONS,

ESTABLISHED IN 1825, BALTIMORE, MARYLAND, FIRST PREMIUM SOUTHERN MANUFACTURED PIANOS, WITH THE PATENT DOUBLE SOUNDING BOARD.

Recommended by the world-renowned Pianist, S. THALBERG, M. STRAKOSCH and the celebrated Violinist, H. VIEUXTEMPS, the greatest living artists in the world—also by Professors and Amateurs throughout the country. These Pianos have taken the *first honors wherever exhibited for competition* over all others, and have been awarded *Five First Premiums* during the Fall of 1859, at the different exhibitions in the various *States of* the Union.

Among the many superior advantages possessed by these instruments over others are that they have a DOUBLE SOUNDING BOARD, for which the Messrs. Newman have received *Letters Patent* from the United States Government. The advantage of this Double Sounding Board is, that they have *greatly increased sounding surface*, in the two distinct sounding boards, (while others have but *one only*,) and hence greatly increased volume and sweetness of sound, and, like a well made Violin, improves by use. They also have the full IRON FRAME, thereby adapting them for ANY CLIMATE, finished in *every style*, from the most elaborate development of taste in the decorative art, to the plainest and most simple style of neatness. (The *internal structure* and finish of all are nearly the same.)

All Pianos sold of our manufacture are warranted for FIVE YEARS—with the privilege of exchanging within six months, if not perfectly satisfactory.

☞ *Factory*, 510, 512, 518 *and* 522 WEST LOMBARD STREET. *Branch Wareroom, No.* 235 BALTIMORE STREET, *near Charles street, sign Miniature Piano.*

Pianos boxed and shipped to all parts of the world. All orders addressed to

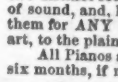
NEWMAN, BRO. & SONS, Baltimore, Md.,

Or to our AGENTS in different parts of the country, will meet with prompt attention.

Also, G. O. PRINCE'S celebrated *MELODEONS* for sale at Factory prices—the best manufactured. oct-1y

PIANOS AND MELODEONS.

NUNNS & CLARK'S, AND STEINWAY & SONS' GOLD MEDAL PIANO FORTES.



The undersigned is constantly receiving new supplies of PIANOS from these celebrated Factories, which are considered by competent judges to be in point of tone, touch, workmanship, durability, keeping in tune and *not breaking strings*, superior to any made in the United States. He is constantly receiving the most unbounded expressions of satisfaction and delight from those who have purchased these Instruments—in fact every Piano sent out from these warerooms has been the means of effecting other sales. F. D. BENTEEN,

No. 10 N. Charles-st., and 80 W. Fayette-st.

☞SECOND-HAND PIANOS FOR SALE. Pianos exchanged. MELODEONS from $45 to $200.

ORGAN HARMONIUMS, for large Churches, with 8 stops and two rows of keys, $350.

Particular attention is paid to orders by mail. nov

BONE DUST AND POUDRETTE,

Warranted free from any mixture, having the Bone Dust in its natural or pure state. Fine or Stamped, by the bushel or ton.

POUDRETTE—A superior article and the cheapest Manure in the market, well adapted for Corn or any crop in the drill or hill.

REFERENCES:—John W. Randolph and N. B. Worthington, Baltimore; Thomas S. Mezeek and John Ridout, Annapolis; R. G. Browstor and J. Moull, N. Jersey. The above named practical farmers will testify to its merits.

FACTORY, Wilk street and Harris' Creek, Canton.

ORDERS left at the American Farmer office will be attended to. [d1] THOMAS BAYNES.

Highly Improved Breeding Stock.

After a long and extensive acquaintance with the relative advantages of various breeds of Horses for general purposes, I have no hesitation in breeding altogether of the Morgan stock, and have owned Black Hawk, and his son Post Boy, for eighteen months; the first was sired by the famous Black Hawk, the best grandson of Justin Morgan.

They will stand at my stable, or I would sell Post Boy, having use myself for but one.

I am breeding Short Horn Cattle, and have now and usually have Young Bulls and Bull Calves for sale, and Calves of both sexes nearly thorough-bred, which I will only recommend where suited to go and worthy. Also a well bred Devon Cow and her Heifer, nearly 2 years old. I will sell low.

I raise only the Chester County Hogs (white) and will sell the best Pigs at weaning time or older. They are unquestionably the best Hogs I am acquainted with, and their cross for Pork on native sows, is probably equal to full bred.—They, as well as my Cattle and Horses, have rarely failed to take first premiums in their classes at our Fairs. For particulars address me.

S. W. FICKLIN,

ap-6t *Belmont, near Charlottesville.*

ROBINSON'S

MANIPULATED

GUANO!

ROBINSON'S MANIPULATED GUANO has been extensively used during the past year, and we have received letters from many Farmers and Planters, who speak in the highest terms in regard to its

VALUE AS A FERTILIZER.

We are fully prepared to supply all orders, and guarantee that the article we offer is not surpassed in quality by any fertilizer now in the market. Our Guano is composed of the

Best Peruvian Guano,

The Richest Phosphatic Guano,

And Finely Powdered Bone,

And we warrant every lot we sell to be

One-half Peruvian Guano,

We would be pleased to have Farmers visit our Works, that they may see and learn how the Guano is prepared.

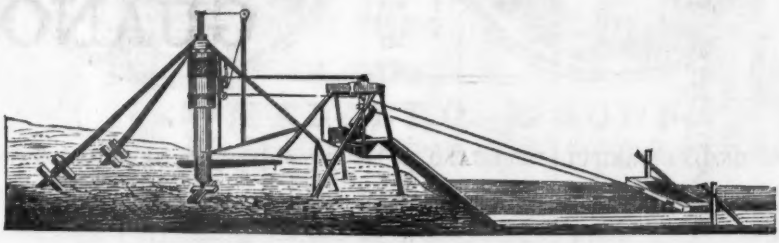
☞Certificates and Pamphlets, giving all needed information, will be furnished at our Counting room, and by our Agents.

F. ROBINSON & CO.,

No. 4 Hollingsworth street,

feb BALTIMORE, MD.

BRYAN'S AGRICULTURAL MARL AND MUD LIFTER,



A STRONG AND DURABLE MACHINE, WHICH CAN BE WORKED BY ORDINARY FARM HANDS.

THE PURPOSE OF THIS MACHINE IS

To Raise the Deposit from the bottom of Ravines, Coves, Creeks, Rivers, or other places inaccessible to Teams.

The machine works with facility 170 feet from the Capstan, and, if well attended, will remove a large cart load every five minutes on an average. For raising marl, a different bucket is made, having a strong steel lip and a steel coulter on each side of the bale, cutting its way free both going out and returning, and will lift any marl clear of rock, or into which a spade or shovel can be forced.

The Bucket is made of the best Boiler Iron, and is so constructed that it deposits its load into the hopper, through which it passes into the cart—the labor of shoveling not being required—and by a reversed motion of the Capstan is carried out for another load.

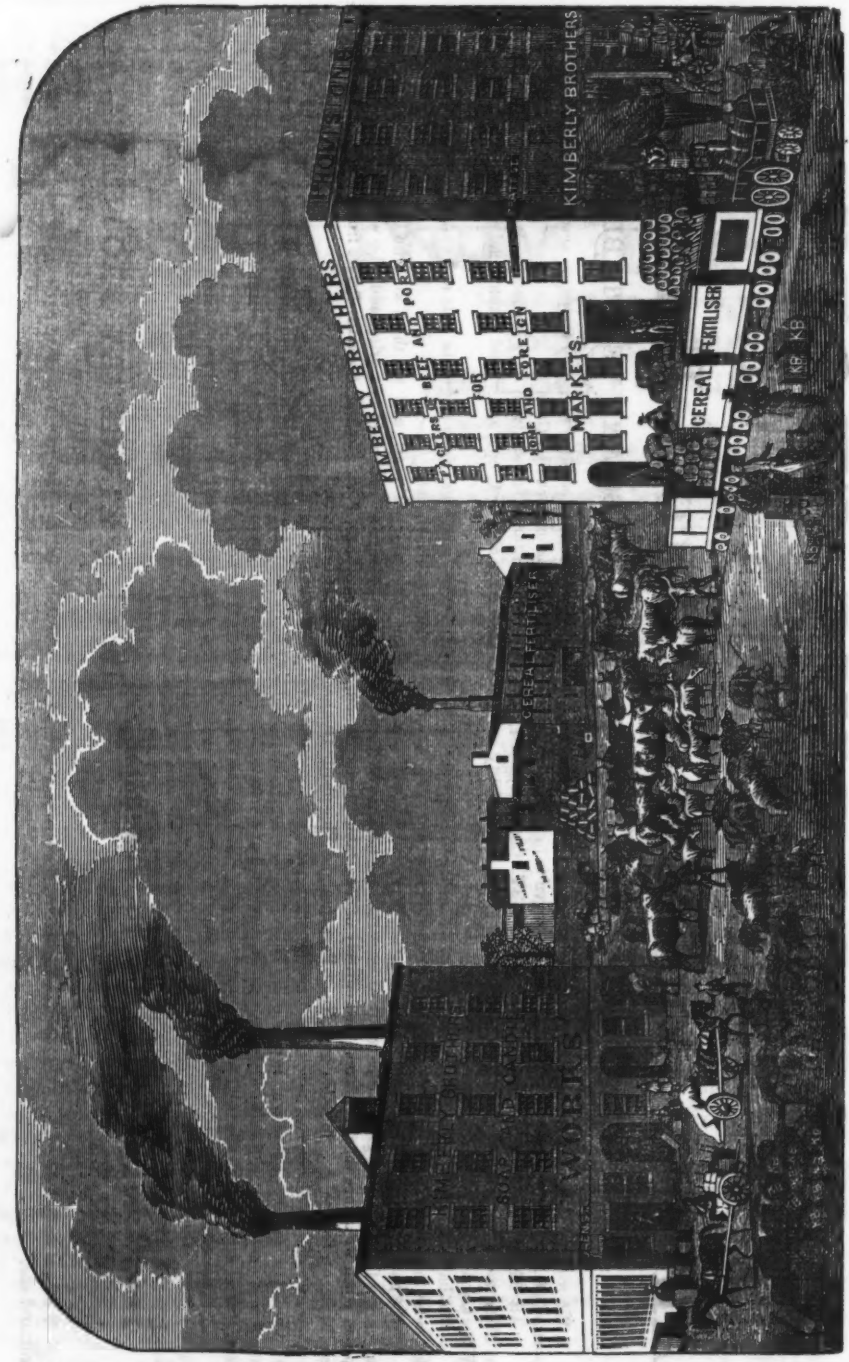
With the Drum—thirty-two inches in diameter and twelve feet lever—two horses are required to work it in mud. The Drum can be reduced in diameter to suit the consistency of the marl—but one man and a boy are required to operate it. By referring to a drawing, with clear explanation, sent with each machine, any ordinary carpenter can put one up without difficulty.

But a few pieces of roughly hewn timber are required for the frame. Every thing else complete, with chain and rope enough to send the bucket 170 feet from the capstan, is furnished in Baltimore for the sum of $225, cash.

All orders promptly attended to or information given at LARRABEE'S FOUNDRY *corner of Front and Plowman streets, Baltimore, Md.*

BRYAN & BROTHER.

october



KIMBERLY BROTHERS, MANUFACTURERS OF THE CEREAL FERTILIZER.

FOR SPRING CROPS.

KIMBERLY'S
Animal Compost or Cereal Fertilizer!

FOR CORN, OATS, WHEAT, RYE, TOBACCO, GRASS AND VEGETABLES.

We would call the attention of Farmers, Planters and Gardeners to our Compost, as particularly adapted to Spring Crops, on account of the large proportion of Nitrogen it contains, and because its Nitrogen is less volatile than Salts of Ammonia or Peruvian Guano.

AS RECOMMENDED BY DR. DAVID STEWART, Chemist of Maryland State Agricultural Society, who says it contains twice as much Nitrogen as Nitre and Ammonia. As the Nitre does not evaporate, consequently it is better adapted to Spring Crops, and would recommend it as a top-dressing to Wheat or Grass Lands at this season.

We have of the above valuable Fertilizer, prepared for Spring sales, about **1000** TONS, which has been put up in beds and undergone decomposition for more than two years, which makes it more valuable than anything we have yet offered to the Farmer.

We have now been engaged in the manufacture of the above Fertilizer extensively for nearly six years, and we think all who have purchased it and given it a fair trial, will give us the credit at least that we have given them a reliable article at an extremely low price, and who will not say it is a low price, when we assure them it is composed entirely of Vegetable Matter, Blood, Bones, Cracklings, Fish, Flesh of Animals, Refuse from Soap Kettles, such as old Bacon Grease, &c., together with No. 1 Peruvian and Phosphatic Guanos, to bring it to standard.

We assure the Farmer we have a standard for every pound we manufacture. The above being put up in beds of say 200 tons each, after being up for two years or longer is cut down, turned over, screened out, samples taken and sent to Dr. David Stewart for analysis, under whose instructions and under the eye of one of our firm every article is carefully weighed and manipulated to bring it to standard—therefore Farmers can rely on getting a pure article, and that at $20 per ton, worth as much, pound for pound, as Peruvian Guano, because it permanently benefits the land.

To poor and worn-out lands our Fertilizer is particularly adapted, having every element the plant requires. Farmers having that description of land will find it greatly to their advantage to give it a trial, the cost being trifling when compared with other Fertilizers in the market, while the results will compare with the best.

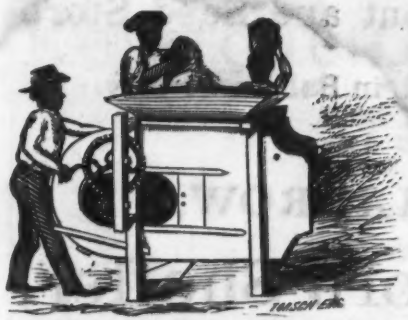
PRICE—$20 PER TON OF 2000 POUNDS—CASH.

For sale by **KIMBERLY BROTHERS,**
CORNER OF PRATT AND PATTERSON STREETS.

We have on hand also, LEACHED ASHES, mixed with Liquor of Bones and Meat boiled in refuse Lye from Soap Kettles—a cheap article for Agricultural use. Also, REFUSE SALT.

march

5 SILVER MEDALS,
3 DIPLOMAS,
70 1st Premiums!



J. MONTGOMERY & BRO.,

155 NORTH HIGH STREET,

BALTIMORE, MD.,

Inventors and Manufacturers of their

DOUBLE SCREENED

ROCKAWAY GRAIN FAN,

Celebrated for their efficiency, durability and ease in working.

The undersigned, during the past year, as well as in those which have preceded it, had the fullest evidence of the superiority of their ROCKAWAY GRAIN FAN.

Wherever a test has been permitted, at any of the Cattle Shows at which their Fan has been exhibited, it has uniformly been triumphant—and the people of the South need not go North for the purchase of a Machine with which to cleanse their grain, for our Fan is unequalled, we believe, by any other ever introduced.

☞ The price of our Fans in Baltimore, is $34; and in Lynchburg, $36. Orders addressed to us at either place will receive prompt attention. A liberal discount to the trade.

The attention of RICE PLANTERS is called to our Fan, constructed for CLEANING RICE, which is the best for the purpose ever invented, and which costs $2 less than our Double Screened Rockaway Grain Fan.

mar

LADD, WEBSTER & CO'S

FAMILY AND MANUFACTURING

SEWING MACHINES,

No. 131 W. BALTIMORE STREET,

Between Calvert and South sts., Baltimore.

W. H. WALMSLEY, AGENT.

Let Manufacturers, Planters, Farmers, Housekeepers or any other persons in search of an instrument to execute *any kind of sewing now done by machinery, make sure they secure the best*, by examining ours before purchasing.

☞ SAMPLES OF WORK SENT BY MAIL. ☜

A FEW TESTIMONIALS IN FAVOR OF OUR MACHINES.

(*Extract from Letter.*)

LIBERTY TOWN, MD., July 2, 1859.

I am very much delighted with your Sewing Machine. It is just the right thing. Should I not be able to procure another, I would not take *ten times the cost* of it for it.

THOMAS CARR.

MOUNT PLEASANT, MD., Nov. 30, 1858.

MESSRS. LADD, WEBSTER & CO.—*Dear Sirs:* The Machine purchased from you in June last has been in constant use for tailoring purposes, and has stood every test to which it has been submitted, and gives entire satisfaction in every particular. The result of my experience is, that no sum, in reason, would induce me to part with it, if its place could not be filled with an exact counterpart I would most earnestly recommend all who want a really good Sewing Machine to examine yours before purchasing

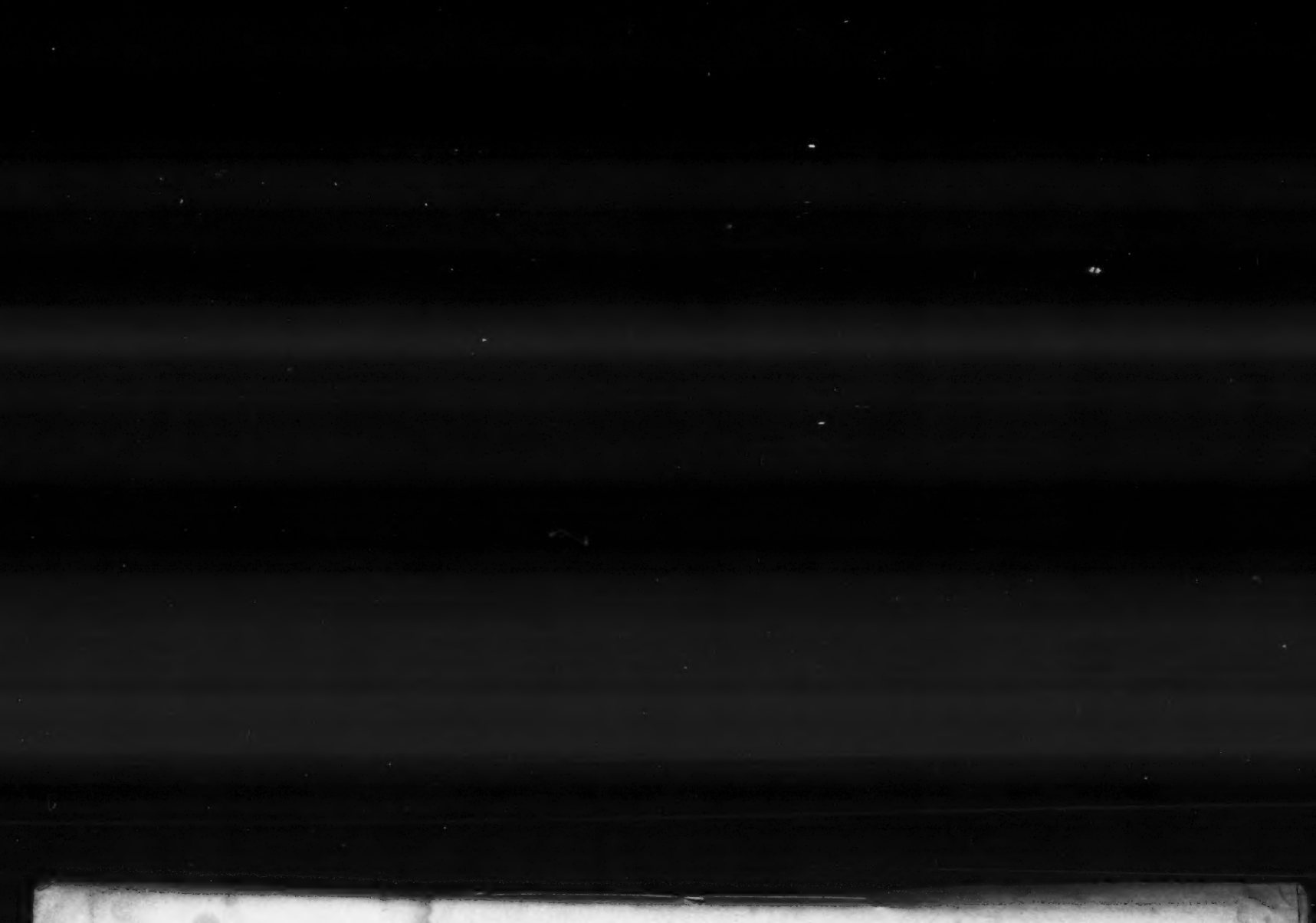
JOHN W. OGBORN.

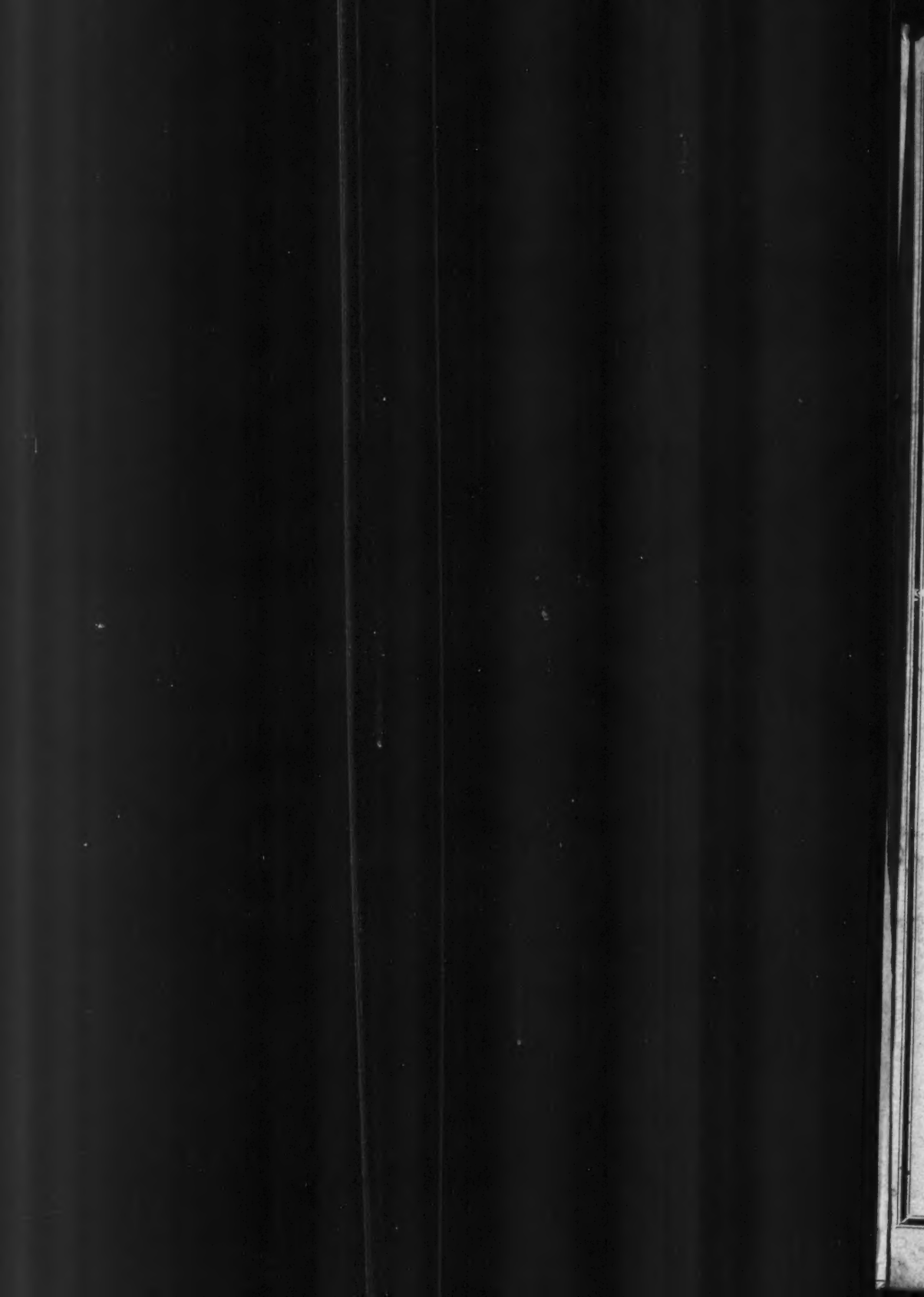
EASTVILLE, VA., May 10, 1859.

MESSRS. LADD, WEBSTER & CO.—*Gentlemen:* The Sewing Machine purchased for myself, and that for my friend arrived safely, and both are giving perfect satisfaction.

As regards the one being used in my own family, Mrs H. is so much pleased with it, that she says if she could not obtain another exactly like it, she would not take $1000 for it. Very truly, yours,

jan E. HOLLAND.





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That you may want, you can get them of him. He keeps the best GRUBBING HOES in the whole country; they sell at *a good price*, but are worth the money. He sells a *very superior* AXE, too—he seems to have an aversion to selling indifferent Implements. He sells about the best

Thresher and Cleaner

In the whole country; sold quite a large number this year, and expects to make a *young fortune* on that *one* Machine; he can give you a list of names nearly as long as your arm, of first rate farmers, that bought this year, and all *perfectly delighted*. He sells *first rate* plain THRESHERS, too, and the *very best*

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Look out for *that* Machine before you buy. Now remember you can get anything you want, either of Implements, Machines or Seeds, (*provided* you pay or satisfy him you will pay,) from

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This admirable machine is now ready for the fruit harvest of 1861. It is, if possible, made better than ever before, and well worthy the attention of all Farmers wanting such machines. It

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And is the only machine that will properly grind Grapes.

☞Orders now received by the manufacturer, payable January 1, 1862. For sale by all respectable dealers and the manufacturer,

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HARRISBURG, March 1, 1861, april-6t